

MANTECA GENERAL PLAN

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BACKGROUND REPORT

CITY OF MANTECA

GENERAL PLAN

BACKGROUND REPORT

April 1988

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INTRODUCTION

INTRODUCTION

This document contains background information compiled for the revised City of Manteca General Plan. The document addresses all the significant issues addressed in the revised Plan and also serves as the "environmental setting" portion of the environmental impact report prepared on the General Plan.

This Background Report discusses every issue required to be addressed by state general plan law as well as issues of purely local importance. It is organized into ten chapters covering groups of related issues. It also includes as Appendix A, a Community Concerns Summary Report which synthesizes comments collected early in the General Plan revision process from interviews with public officials, a townhall meeting in August 1985, and responses to a widely distributed survey form. The following chart relates the issues covered in each chapter of the Background Report to the required elements of the general plan.

REQUIRED GENERAL PLAN ELEMENTS (Government Code Section 65302)

CHAPTER	LU	CI	H	CO	OS	N	S
I. LAND USE	X						
II. HOUSING	X		X				
III. POPULATION	X		X				
IV. ECONOMIC CONDITIONS AND FISCAL CONSIDERATIONS	X		X				
V. TRANSPORTATION		X					
VI. PUBLIC FACILITIES AND SERVICES	X		X	X			X
VII. RECREATION AND CULTURAL SERVICES	X				X		
VIII. NATURAL RESOURCES	X			X	X		
IX. HEALTH AND SAFETY	X				X	X	X
X. SCENIC RESOURCES AND URBAN DESIGN	X				X		

LU = Land Use Element
 CI = Circulation Element
 H = Housing Element
 CO = Conservation Element
 OS = Open Space Element
 N = Noise Element
 S = Safety Element

The Background Report was prepared by a multi-disciplinary Consultant Team headed by J. Laurence Mintier & Associates. Pepper Associates was responsible for preparing Chapter X, Scenic Resources and Urban Design. Joseph R. Holland, Consulting Traffic Engineer, prepared those sections of Chapter V, Transportation, concerning the street and road system and parking.

Jones & Stokes Associates was primarily responsible for preparing Chapter IX, Economic Conditions and Fiscal Considerations; Chapter VI, Public Facilities and Services; Chapter VII, Cultural and Recreational Resources; Chapter VIII, Natural Resources; and Chapter IX, Health and Safety. Mintier & Associates prepared the balance of the report and was responsible for editing and compiling the document.

The Consulting Team gratefully acknowledges the contributions of the City of Manteca staff in providing information and in reviewing earlier drafts of this report.

CHAPTER I. LAND USE

CHAPTER I

LAND USE

INTRODUCTION

Land use is the principal focus of the general plan. This chapter provides a context for the revised General Plan by describing existing land use conditions and local, regional, state, and federal plans and developments that have a bearing on Manteca land use. The first part of the chapter describes Manteca's regional setting and Planning Area. The chapter next reviews the history of planning and land use regulation in Manteca, describing earlier general plans and other special planning projects. Descriptions of Manteca's current zoning structure, existing land use, spheres of influence, and annexation history follow. These are in turn followed by a discussion of County and regional policies and developments which affect land use in Manteca.

REGIONAL SETTING

Manteca is located near the northern end of the San Joaquin Valley in southern San Joaquin County (see Figure I-1). It lies 4 miles south of Stockton's southern boundary and about 12 miles from central Stockton, 14 miles northwest of Modesto, five miles northwest of Ripon, three miles east of the unincorporated community of Lathrop, and 14 miles east of Tracy. San Francisco is about 75 miles to the northwest.

State Highway 99 runs north-south through Manteca on the eastern side of town and Interstate 5, the second principal north-south route through the Central Valley, runs approximately four miles to the west. The San Joaquin River runs approximately five miles west of Manteca. State Route 120, the principal route from the Bay Area to Yosemite, runs east-west through the southern part of Manteca.

PLANNING AREA

For the purposes of the revised General Plan, a planning area has been defined as illustrated in Figure I-2. The Planning Area has been established solely for the purpose of data collection and analysis and does not imply any intent on the part of the City of Manteca concerning future City growth. The Planning Area, which encompasses approximately 69.6 square miles of both incorporated and unincorporated area, is bounded by Jack Tone Road on the east, French Camp Road on the northwest, Roth Road on the north, the San Joaquin River on the west, and West Ripon Road and McMullin Road on the south.

TABLE I-1

AREA WITHIN PLANNING AREA AND CITY LIMITS

Area Within City Limits	8.5	Square miles
Unincorporated Areas Within Planning Area	61.1	Square miles
Total Area Within Planning Area	69.6	Square miles

Source: Consultant Team Estimate, September 1987

HISTORY OF LAND USE PLANNING IN MANTECA

For most of its existence, Manteca has served as an agricultural service center. More recently, however, it has evolved into a bedroom community for Bay Area work centers. It nonetheless continues to maintain a small town feeling and rural character with a strong community identity as a place to both live and work. Planning and land use regulations over the years have aimed at preserving this small town rural atmosphere, while at the same time attempting to adapt the town to the new social and economic realities of the Central California region.

Early Developments

Incorporated on May 28, 1918, Manteca created a planning commission in 1960. The City adopted its first zoning ordinance in 1955 and its first subdivision ordinance in 1970. Manteca's early history is reviewed in Chapter VII, Cultural and Recreational Resources, and its historical population growth is summarized in Chapter III, Population.

1962 General Plan

Manteca adopted its first General Plan in 1962. The plan was prepared by Sydney Williams, City and Regional Planner, of San Francisco, under the guidance of a 70-member Citizens Advisory Planning Committee.

The 1962 plan had an estimated holding capacity of 44,000 persons, and projected populations of 30,000 by 1980 and 42,000 by 1990. At the time, Manteca had a population of 8,242 (1960).

The plan included the following objectives:

- o Control and direct the future growth of Manteca so that it will be compact, orderly, and attractive in each quadrant of the expanding city.
- o Protect the present quality of residential development in Manteca and provide a full range of new dwelling types, including both apartments and large lot subdivisions.
- o Capitalize on Manteca's crossroads location by encouraging the development of motor hotels and other tourist-serving facilities at the gateways to the city.
- o Redesign the central business district to enable it to capture its full share of retail trade by providing for better automobile and pedestrian circulation, more adequate parking, improved appearance, and increased efficiency. Design the new civic center so as to enhance and anchor the central business district in its present location.
- o Reserve, in one principal location, sufficient land for future controlled industrial growth.
- o Utilize the one mile grid of farm roads for Manteca's future thoroughfares by reserving adequate rights-of-way for landscaping and future traffic lanes.

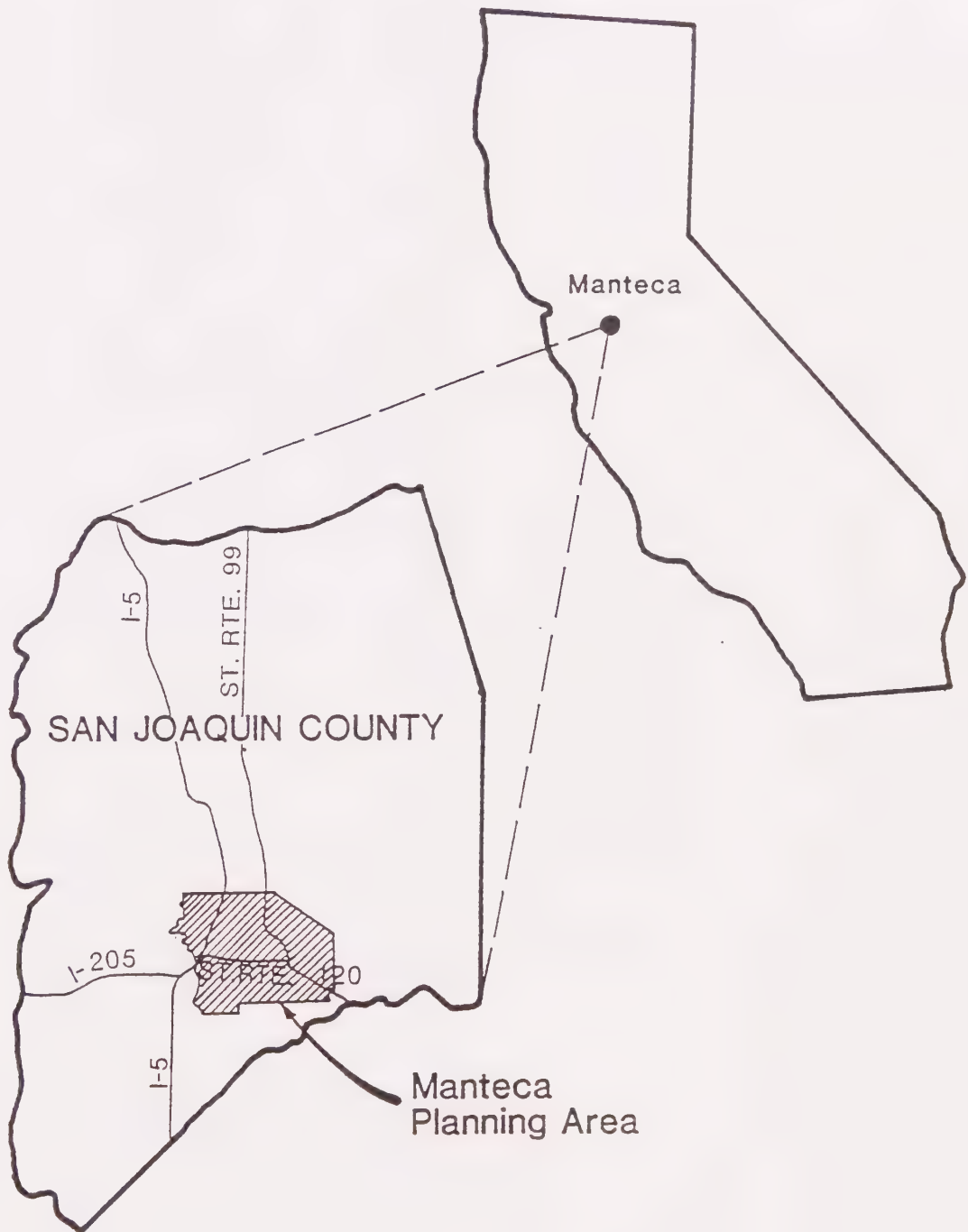
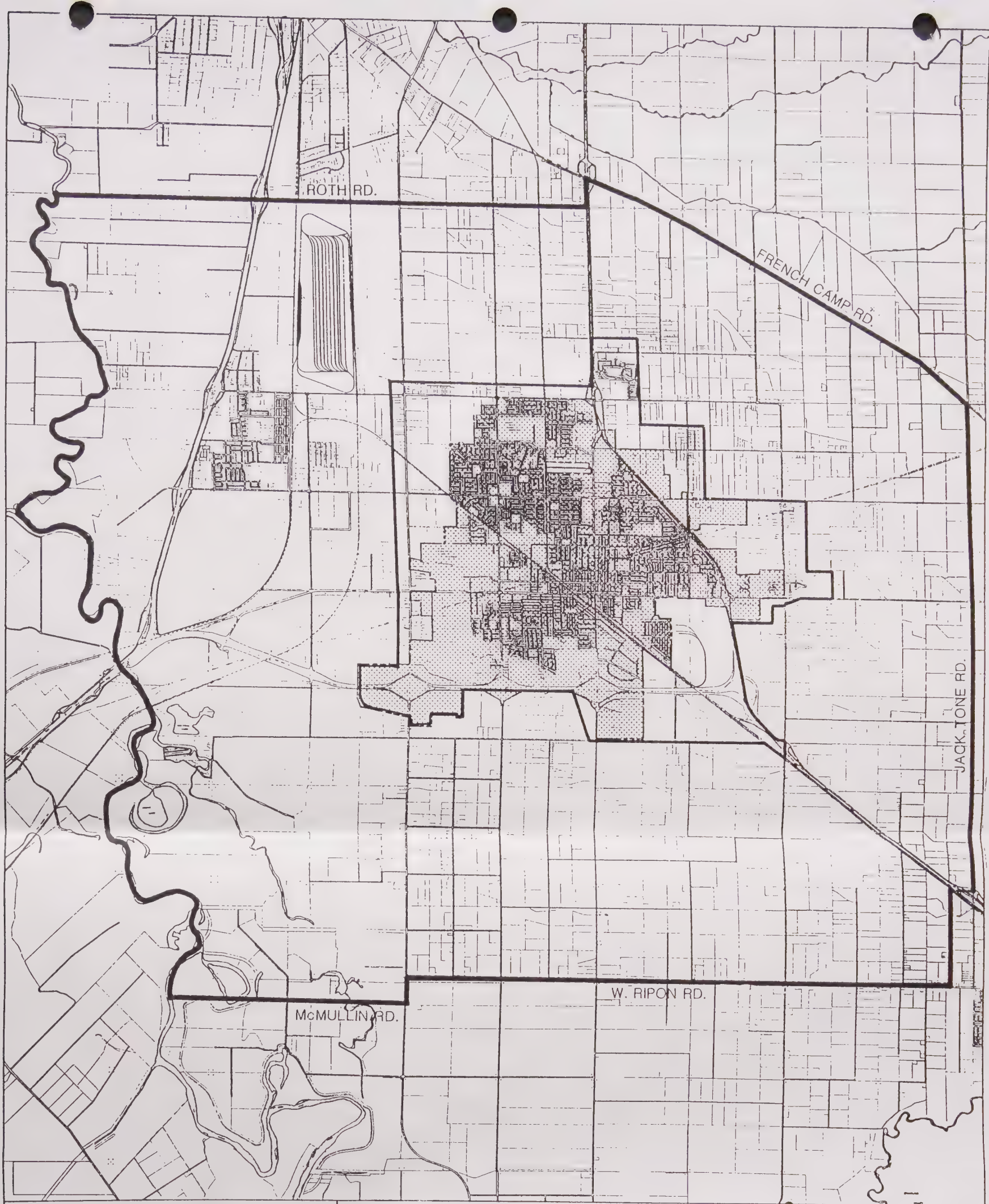
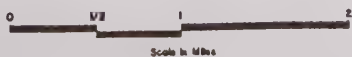


FIGURE I-1. REGIONAL SETTING

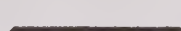
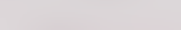



MANTECA CALIFORNIA General Plan



J. LAURENCE MINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

FIGURE I-2. PLANNING AREA & INCORPORATED MANTECA

-  PLANNING AREA
-  MANTECA SPHERE OF INFLUENCE (LAFCO)
-  INCORPORATED MANTECA

Source: City of Manteca, April 1988

- o Provide a thoroughfare loop with railroad grade separation surrounding downtown Manteca to collect and distribute the traffic which will focus on this area.
- o Designate a future system of curving, landscaped, collector streets to serve residential development within the major grid of future thoroughfares. Location of the collector streets should be coordinated with future schools, parks, and the overall neighborhood pattern.
- o Provide generous tree-shaded park areas, lakes, and a handsome civic center; utilize and create topographic variations to the fullest extent so as to compensate for the lack of natural physical features such as a waterfront, hills, or forests.
- o Protect Manteca's rural environment and the integrity of new urban development through annexation and control of scattered, unrelated residential, commercial, and industrial development at the edge of the city.

1968 Major Street and Circulation Plan

In 1968 Wilbur Smith and Associates prepared a Major Street and Circulation Plan for Manteca. The recommendations of this study are summarized in Chapter V, Transportation.

1971 Recreation Element

With the assistance of Daniel, Mann, Johnson, and Mendenhall, the City prepared and adopted a recreation element to its General Plan in 1971. Major conclusions and recommendations of the Recreation Element included the following:

- o The City of Manteca should experience moderate growth over the next twenty years. From a present population of almost 15,000, area development should result in an increase to 22,000 by 1980 and to almost 35,000 by 1990.
- o Existing park and recreation areas within the study area are for the most part in excellent physical condition and well maintained.
- o Additional recreation facilities will be required to handle organized activities primarily softball, football, and swimming.
- o Based on an analysis of future growth projections, financial considerations, and the overall character of the community, a space standard of 2.5 acres of neighborhood park area per 1,000 persons is recommended for the City of Manteca.
- o An overall recreation area standard of 5.0 acres per 1,000 persons is recommended. This acreage would include neighborhood facilities as well as a community park and open space areas.
- o Based on the estimated 1975 population of the City, an additional 25 1/2 acres will be required to conform to the recommended neighborhood park standard of 2.5 acres per 1,000 persons. It is

recommended that a continuing park acquisition and development program be initiated in order to meet short and long range commitments.

1973 Open Space/Conservation Element

Responding to a new state mandate, the City of Manteca added an Open Space/Conservation Element to its General Plan in 1973. The Element contained the following major objectives and policies:

Open Space for the Managed Resource Production

Objectives:

1. Encourage the continued use of existing productive agricultural land within and around Manteca's General Plan boundaries.
2. Discourage fragmentation of land into small parcels within Manteca's sphere of influence and outside the General Plan boundaries.
3. Maintain the capability of aquifer recharge areas to produce quality water for urban and rural uses.

Policies:

1. A coordinated approach will be taken towards solving all water supply and demand problems.
2. Developmental impact on recharge capability will be determined and considered in all future development.
3. Growth inducing potentials will be considered in all future water supply and treatment facilities.
4. The City will oppose all non-contiguous development which prematurely causes the removal of land from agricultural activity.
5. The City will oppose the fragmentation of land parcels in its fringe into smaller residential parcels.
6. The City will begin to implement land conservation programs for agriculture and open space preserves in accordance with provisions of the Land Conservation Act of 1965.

Open Space for Health, Welfare, and Well-Being

Objectives:

1. Provide open space for passive use as well as active multiple usage.
2. Provide open space to meet the recreation needs of present and future Manteca residents.
3. Encourage multiple use of open space where uses are clearly not incompatible.

4. Recognize the need for clear open space in areas of potential public hazard.

Policies:

1. Continue to implement the Recreation Element of the Manteca General Plan.
2. The City will continue its policy of requiring parks and open space dedication in major new subdivisions.
3. The multiple use of open space will be encouraged and supported whenever possible.
4. Projects which are detrimental to air quality will not be permitted.
5. Open space as a control of patterns of future urban development shall be considered in the General Plan update.
6. The use of significant public utility easements will not be encouraged so that multiple use of the easements for bicycle paths and urban trails may be possible.

1975 General Plan

In 1973, the City undertook a revision of the 1962 General Plan with the assistance of Duncan & Jones, Urban and Environmental Planning Consultants, of Berkeley. The planning area was bounded by Airport Way on the west, Lathrop Road on the north, Austin Road on the east, and the future State Highway 120 bypass on the south. The planning period extended to 1995. The General Plan holding capacity for the planning area was calculated at 63,630 persons and 23,690 housing units; which was about 110 percent greater than total projected units. The plan generally directed growth to the north and the west.

1980 Development Policy Conference

In March 1980, Manteca city officials held a Development Policy Conference in an effort to establish policy and set priorities for city growth. Several major policy themes emerged from the conference.

- o Revitalization of Manteca's central core
- o Upgrading of older neighborhoods
- o Historic preservation
- o Orderly long-range growth plans for both the city and urban fringe area
- o Consistent industrial locations and levels of growth
- o Enhancement of urban design
- o Maximum absorption rate = 500 dwelling units per year
- o Avoid heavy industry while encouraging clean, light industries

These concerns, among others, were addressed in the 1981 General Plan Update.

1981 General Plan Update 1980-2000

In 1981 the City of Manteca completed an update of its 1975 General Plan with the assistance of Williams, Platzek, and Mocine, City and Regional Planners, of Sausalito. The update made major recommendations concerning the treatment of the urban edges and fringe areas. The plan also recommended phasing of development.

The Plan included the following goals and policies:

1. Goals for Overall Character of Manteca:
 - o Encourage a growth rate of approximately 500 dwellings/year
 - o Retain "small town" atmosphere in future years
 - o Provide for orderly expansion of City's growth boundaries
2. Goals Related to Economic and Social Issues:
 - o Encourage continued industrial growth with "clean" industries
 - o Continue to plan for increased business in downtown Manteca
 - o Provide for improved housing and public transit for elderly
3. Residential Conservation and Growth Policies:
 - o Rehabilitate older dwellings and residential areas
 - o Have broad range of new housing--large lots to condos
 - o Use mixed residential densities and planned open space
 - o Provide for solar access in all new subdivisions
4. Policies for Inner City Revitalization:
 - o Utilize special Neighborhood Enhancement Code
 - o Provide new urban features (such as Library Park) downtown
 - o Consider State Redevelopment Act incentives
 - o Revitalize the fringe of Manteca's inner Core Area
 - o Enhance building facades and quality of signs downtown
5. Policies for Expansion of Commercial Development:
 - o Cluster development along thoroughfares
 - o Provide for appropriate uses near freeway interchanges

- o Locate neighborhood shopping centers strategically
- o Distinguish between central and neighborhood commercial
- 6. Goals for Urban Design Enhancement:
 - o Provide strong enhancement of all Manteca's gateways
 - o Provide design control for signs and commercial uses
 - o Encourage a high quality of landscaping throughout Manteca
 - o Provide landscaped edges to define City's outer form
- 7. Other Significant Goals and Strategies:
 - o Encourage volunteer clean-up programs throughout City
 - o Broaden cultural programs for all Manteca's citizens
 - o Reorganize service district boundaries to avoid overlaps
 - o Eliminate traffic congestion in some parts of City
 - o Provide system of bicycle and walking paths throughout Manteca

A key objective of the 1980 General Plan was a growth rate of 500 dwelling units per year. This growth rate, if maintained over 20 years, would result in a population of about 52,000 by the year 2000. However, the plan projected a population of 45,132 by the year 2000.

The plan also assumed that the housing stock would be composed of about 30 percent multi-family units.

In terms of the pattern of development, the northeast quadrants were targeted as short and intermediate range expansion areas. Because of sewer constraints, only moderate expansion was shown in the plan for the northwest quadrant.

The plan promoted the concept of residential satellites in an attempt to organize growth while controlling the character and nature of Manteca. While specific sites were not identified in the plan, certain land use policies were recommended to guide and evaluate future proposals:

- o Proposed satellites must be planned as a whole and an adequate infrastructure must be provided.
- o Sewer capacity must be adequate for any proposed satellite; septic tanks shall not be permitted.
- o Market demand studies are required before approval can be granted.
- o Minimum sizes should be 100 acres and/or contain 300 dwelling units in order that a viable and serviceable neighborhood will be created.

- o Satellites that provide an array of residential densities and dwelling types shall be preferred over proposals which provide one type of lot and/or dwelling unit.
- o Preference may be given in some cases to satellites which ultimately can be linked with the urban fabric of Manteca.

1985-88 Sewer Moratorium and Growth Management System

In 1985, the City of Manteca imposed a building moratorium when sewage flows began to exceed capacity at peak periods. Based on a recalculation of the sewer capacity by the City's engineering consultants, the City of Manteca was allowed to temporarily lift its building moratorium in 1986 and to issue a limited number of commercial and residential building permits.

With the completion of a sewer plant expansion in 1987, which provides for approximately three years of growth, the City began issuing building permits in Fall 1987 according to an allocation formula based on the additional capacity provided by the plant expansion.

Concerned about the ability of the City's services to keep pace with growth and the impacts of growth generally, the Manteca City Council began in 1986 to explore development of a growth management program. After a year and a half of consultant work and public discussion, the City prepared a Growth Management Program that sets a long-term maximum annual residential growth rate of 3.9 percent, and a short-term growth rate based on the availability of Phase I sewer capacity. The Growth Management Program will also provide for periodic evaluation and scoring of residential, commercial, and industrial projects to establish eligibility for project approval. The Growth Management Program is to be adopted concurrently with the adoption of the revised General Plan in Spring 1988.

1985-88 General Plan Revision

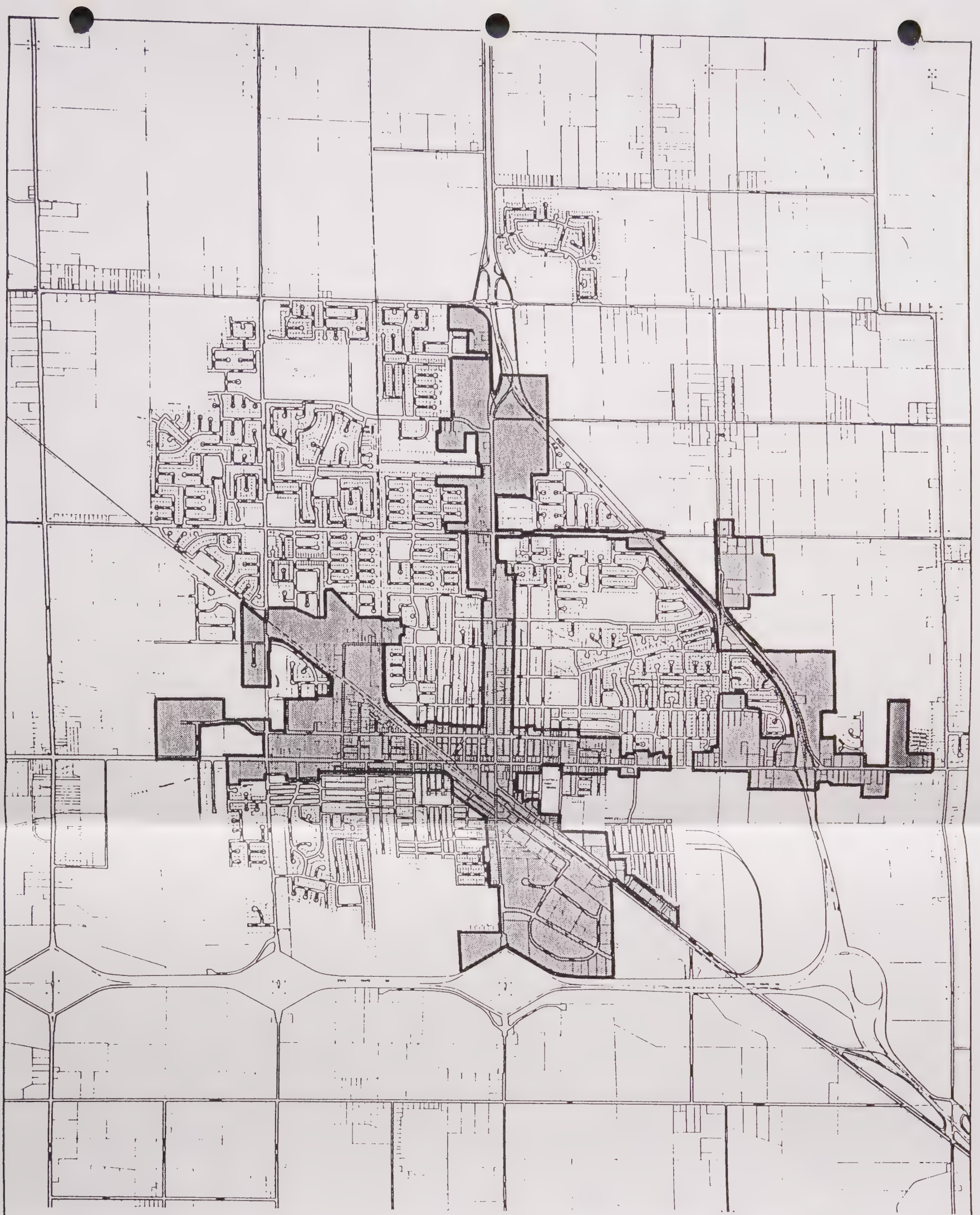
Prompted by rapid growth, annexation pressures, a sewer moratorium, and a change in City Council attitudes, the City of Manteca initiated a comprehensive general plan revision in mid-1985. Assisted by a consulting team headed by J. Laurence Mintier & Associates of Sacramento, the City completed and adopted the new plan in May 1988.

1986 Redevelopment Plan

In late 1985, with the assistance of Urban Futures of Fullerton, the City initiated preparation of a redevelopment plan. The redevelopment plan, the boundaries of which are shown in Figure I-3, was adopted in December 1986.

ZONING

Under state law cities and counties have broad latitude in establishing zoning standards and procedures. Outside of a general requirement for open space zoning and several special requirements governing residential zoning, state law establishes only in broad terms the scope of zoning regulation and sets minimum standards for its adoption and administration. One key requirement, however, is that zoning be consistent with the general plan.



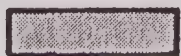
MANTECA
CALIFORNIA
General Plan



0 1/4 1/2
Scale in Miles

J. LAURENCE MINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

FIGURE I-3. REDEVELOPMENT PROJECT AREA



AREA INCLUDED IN REDEVELOPMENT PROJECT

Source: City of Manteca, February 1986

The current Manteca Zoning Ordinance was adopted in 1978 but has been amended numerous times since. In quite a few areas in the city, zoning is inconsistent with the 1981 General Plan land use diagram. The following sections summarize the structure of the Zoning Ordinance.

Residential Districts

The Zoning Ordinance contains five primary residential zoning districts. The ordinance has a Residential Estate District (R-E) that provides for a single family dwelling and agricultural uses on a lot with a minimum area of 20,000 square feet. The Single Family Residence District provides for single family dwellings with three different minimum lot sizes specified: R1-6 (6,000 square feet); R-1-8 (8,000 square feet); and R-1-10 (10,000 square feet). The Single Family Attached Patio Homes District (R-2) is designed to protect existing conventional single family neighborhoods, while encouraging development of affordable, innovative single family attached patio homes on lots as small as 3,750 square feet. The Garden Apartment District (R-3) provides for single family and multi-family dwellings with 2,925 square feet of lot area required per unit. The Multi-Family-Institution District (R-4) allows for the full range of housing types plus selected institutional uses and requires a minimum of 1,450 square feet of lot area per unit.

Commercial Districts

The ordinance includes five commercial districts. The Office Commercial District (C-O) is a buffer district between residential and non-residential districts and provides for professional offices primarily. The Neighborhood Commercial District (C-N) provides for a limited range of commercial uses serving neighborhood needs. The Community Commercial District (C-C) is designed for a broad range of commercial uses. The Highway Commercial District (C-H) is designed principally for retail, amusement, and transient residential uses tied to high volume thoroughfares. The General Commercial District (C-G) provides for wholesale, warehousing, and heavy commercial uses primarily.

Industrial Districts

The Manteca Zoning Ordinance includes two industrial districts. The Industrial Park District (I-P) is intended for research, manufacturing and related uses requiring a higher-quality environment. The Manufacturing District (M) provides for heavier industrial uses.

Special Purpose Districts

The ordinance contains three additional special purpose districts. The Planned Unit Development District (P-U-D) allows for a mixture of uses and developments with unusual density, building intensity, or design characteristics, which would normally not be permitted in a single-use district. All development in the P-U-D District is subject to an approved Unit Development Plan.

The Neighborhood Enhancement District (N-E) is like the P-U-D District but is used in older residential neighborhoods, with uses subject to an approved Neighborhood Enhancement Plan or consistency with adopted Compatibility Review Criteria.

The Open Space District (O-S) is used for the protection of both public and private open space, broadly defined.

Performance Standards

In addition to the prescriptive standards of the various zoning districts, performance standards are set out in the ordinance that apply to all industrial uses in the M District and to any new or existing use which the Building Inspector has reason to believe may not conform to these standards. The performance standards cover such nuisances and safety issues as noise, vibration, odors, glare, fire and explosion, heat, radioactivity or electric disturbance, smoke, fumes, dust, particulate matter, and liquid or solid wastes.

EXISTING LAND USE

Manteca

Existing land use in incorporated Manteca can be described by dividing the city in five areas: the downtown and four quadrants defined by Yosemite Avenue and Main Street. Existing land use in Manteca is shown in Figure I-4.

Downtown

The hub of Manteca's downtown area is the intersection of Yosemite Avenue and Main Street. Yosemite Avenue, east and west of Main Street, is a strip-commercial area made up of older buildings housing retail and small businesses, including hardware stores, clothing stores, beauty shops, video outlets, small restaurants, banks, local newspapers, and real estate offices. The same type of older retail and small businesses are found along Main Street in the vicinity of Yosemite Avenue. Commercial development continues north along Main Street with older residential units mixed in. Beyond the older downtown core, commercial development along both Yosemite Avenue and Main Street is much newer.

Southwest Quadrant

This quadrant of the city is almost exclusively residential, with the exception of a small triangle of downtown commercial development defined by the railroad, South Main Street, and Yosemite Avenue. Most of the quadrant contains housing built prior to the explosive growth which followed the mid-60s. In fact, the line of demarcation between this earlier development and the recent construction is quite apparent. There are some very small houses and a limited number of multiple units in the older portion of the quadrant.

This quadrant contains five public parks--Baccilieri Park, South Side Park, Sequoia Park, Yosemite Park, and Parkview Park--and Sequoia School.

There are several major proposed developments in this area. There have also been a number of recent annexations in this area, including Cotta-Payan (105 acres), Quail Ridge (56.6 acres), and Brocchini/Pacific Road-Airport Way (620 acres).

Southeast Quadrant

This quadrant contains two distinct types of areas separated by Moffat Boulevard and the Southern Pacific Railroad tracks.

The industrial park lies south of Moffat Boulevard. Most of Manteca's industrial development and vacant industrially zoned land is located in this area. The area south of the 120 By-pass is almost completely vacant and available for industrial development. There are several vacant parcels in the section of the industrial park lying north of the 120 By-pass.

One of Manteca's older sections lies north of Moffat Boulevard. Most of this area is residential with mixed retail commercial development fronting on the south side of Yosemite Avenue. Manteca High School, Calla Continuation School, Lincoln School, Lincoln Park and School, and Gus Schmidt Stadium are located in this quadrant. The Spreckels plant is located outside the city limits just south of Yosemite Avenue near Highway 99.

Northwest Quadrant

Largest of the four city quadrants, this area contains the majority of Manteca's housing stock. Three quarters of this quadrant contains housing built since the mid-1960s, with at least one-half of that number dating from the 1980s. Although single family homes predominate, there are a number of newer multi-family complexes in the area.

This quadrant contains a total of fourteen parks and five schools. In addition, the Manteca Park Municipal Golf Course lies at the western edge of the city between Yosemite and Louise Avenues.

Most of the city government offices are to be found in this quadrant; the Civic Center complex on Center Street near Union Road contains the community center, City Council chambers, and City offices. A new senior citizen center is under construction in the Civic Center complex at the corner of Eucalyptus Street and Cherry Lane.

A number of projects in this area have been recently completed or approved. Recent annexations in this quadrant include Chadwich Square (42 acres) and St. Joseph's (49 acres).

Northeast Quadrant

This quadrant is similar in character to the northwest quadrant, although it is only half the size. Approximately half of this quadrant--the area south of Alameda Avenue and west of Cottage Avenue--was built out prior to 1965. The balance of the quadrant consists primarily of single family residential developments constructed during the past two decades, roughly half of which has been developed since 1980.

There are a number of large and attractive older homes in the area near Yosemite Avenue and Center Street between Main Street and Fremont Avenue. This general area also contains a substantial number of older residences converted into office-commercial uses, including a number of health-care related facilities. Manteca Hospital is located in this quadrant, at the eastern end of North Street. The Senior Citizens Center and the Justice Court Building are also located within the quadrant.

Much of Manteca's new commercial development has occurred in this quadrant on the northern end of Main Street.

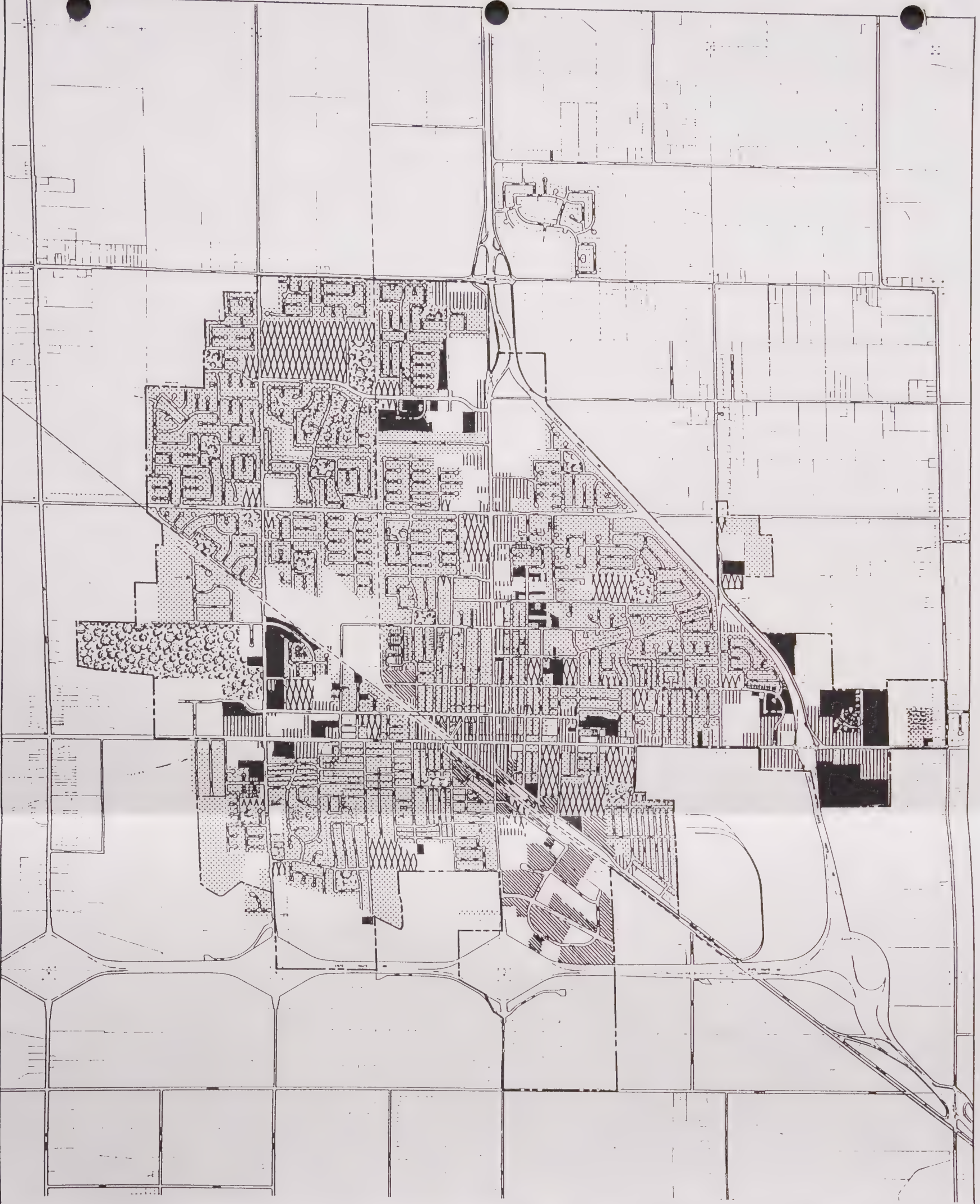
Most of the projects currently planned or recently approved for this quadrant are residential developments. Recent annexations in this quadrant include Ramus-East Louise (125 acres) and Yager-East Louise (63 acres).

Land Use Inventory

In October 1985, the City of Manteca conducted an inventory of existing land use within the city limits. City staff relied on aerial photos, building permit information, and field surveys in documenting existing land use. The results of the City survey, updated to March 1986, are presented in Figure I-4.

Based on existing land use information (as of October 1985) developed by the City of Manteca Planning Department, the Consultant Team prepared Table I-2, which shows the total acreage in each zoning category, the developed acreage, and the acreage of vacant land and underutilized land (including land in agriculture). According to Table I-2, approximately 78 percent of the land within the city is already developed. The rest is either vacant (18 percent) or underutilized (4 percent).

The table does not show the amount of land devoted to each use within each zone. That is, while most zones are developed with allowable uses (e.g., single family homes in R-1 zones), non-conforming uses within each zone (e.g., commercial use in a residential zone) were not separated out.



MANTECA
CALIFORNIA
General Plan



J. LAURENCE MINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

FIGURE I- 4. EXISTING LAND USE - MANTECA

- | | | | |
|--|---------------------|--|----------------------|
| | SINGLE FAMILY | | VACANT/UNDERUTILIZED |
| | DUPLEX | | |
| | TRIPLEX & APARTMENT | | |
| | COMMERCIAL | | |
| | INDUSTRIAL | | |
| | PUBLIC & CHURCH | | |
| | PARKS | | |
| | CITY LIMITS | | |

Source: City of Manteca, March 1986

TABLE I-2

EXISTING LAND USE BY
ACREAGE IN EACH ZONING DISTRICT¹
October 1985

<u>Zone</u>	<u>Acres</u>	<u>Developed</u>	<u>Vacant</u> ²	<u>Underutilized</u> ²
R-E	65.7	30.1	29.1	6.5
R-1-6	2,261.5	2,029.5	190.6	41.4
R-1-8	49.8	13.6	16.7	19.5
R-1-10	14.1	0.1	14.0	0
R-2	2.6	2.6	0	0
R-3	310.3	293.0	3.6	13.7
R-4	358.6	271.9	72.3	14.4
C-O	37.2	22.5	14.2	0.5
C-N	24.0	16.0	5.5	2.5
C-C	289.4	205.6	77.9	5.9
C-H	157.2	97.4	40.2	19.6
C-G	125.5	34.0	58.1	33.4
I-P	262.4	106.9	155.5	0
M	89.1	78.6	7.5	3.0
PUD	107.0	29.0	62.2	15.8
N-E	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	4,154.4	3,230.8	747.4	176.2

¹Includes only land within incorporated city

²Net acres

Source: J. Laurence Mintier & Associates based on City of Manteca Planning Department Survey, October 1985

Since the land use inventory was conducted in October 1985, a substantial amount of land has been annexed and much of the land classified as vacant in October 1985 has since been developed or committed to development.

Within the Planning Area, the City of Manteca owns 532.02 acres (September 1987). City-owned land is shown in Figure I-5 and listed in Table I-3.

TABLE I-3
CITY-OWNED LAND

<u>Location</u>	<u>Acreage</u>	<u>Purpose</u>
1. 290 S. Powers Ave.	.99	Fire Station No. 1
2. 245 S. Powers Ave.	3.37	Park, Swimming Pool, & Baseball
3. 805 Marin St.	.19	Water Well No. 7
4. 109 E. Wetmore St.	2.30	Corporation Yard & Water Tank
5. 208 E. Wetmore St.	3.31	Corporation & Animal Pound
6. 147 Vanderbilt Cir.	.17	Water Well No. 13
7. 125 S. Maple Ave.	.83	Public Parking
8. 220 Oak St.	.25	Corporation Yard (Water)
9. 154 Stockton St.	1.26	Park
10. 409 Oregon St.	3.34	Park
11. 331 Jessie Ave.	.27	Water Well No. 5
12. 1071 Ebbetts Ave.	.03	Storm Drain Lift Station
13. 868 Wawona St.	4.00	Park & Storm Drain Facility
14. 600 El Portal Ave.	4.91	Park & Water Well No. 9
15. 510 S. Union Road	.08	Abandoned Storm Drain Lift Station
16. 1291 Parkview St.	3.64	Park & Storm Drain Lift Station
17. 305 N. Union Road	121.66	Golf Course, Tennis Courts, Corporation Yard (Parks), Baseball & Sanitary Sewer Lift Station
18. 1001 W. Center Road	9.53	City Administration, Police & Community Center, Senior Center
19. 740 W. Center St.	.20	Fire Station No. 2
20. 320 Center St.	1.47	Library & Park
21. 204 Poplar Ave.	.43	Tennis Courts & Scout Hut
22. 224 W. Center St.	.37	Park
23. 116 Sycamore Ave.	.22	Public Parking
24. 111 N. Maple Ave.	.15	Public Parking
25. 140 N. Maple Ave.	.24	Public Parking
26. 119 N. Main Ave.	.20	Public Parking
27. 431 Pine St.	.58	Park & Water Well No. 3
28. 1724 E. Alameda St.	.08	Water Well No. 10
29. 350 Mylnar Ave.	.12	Water Well No. 10
30. 1344 E. North St.	.02	Storm Drain Lift Station
31. 370 Button Ave.	.11	Water Well No. 11
32. 210 Jason St.	.18	Storm Drain Lift Station
33. 1268 Springtime Ave.	4.04	Park & Storm Drain Retention
34. 127 Argonaut St.	.45	Water Well No. 8
35. 688 Poplar Ave.	.092	Storm Drain Lift Station
36. 545 W. Alameda St.	4.00	Park, Boys & Girls Club, & Storm Drain Facilities
37. 1041 Elm Ave.	3.07	Park
38. 375 W. Louise Ave.	.24	Fire Station No. 3
39. 1611 Maywood Ave.	1.56	Park
40. 1901 Crestwood Ave.	3.95	Park & Storm Drain Facility
41. 810 Agate Ave.	5.20	Park, Storm Drain Facility, & Water Well No. 15

TABLE I-3
(Continued)

42. 1232 Trailwood Ave.	5.03	Park & Storm Drain Facilities
43. 1750 Hoyt Lane	15.83	Park, Baseball & Water Well No. 12
44. 1442 Kelly Dr.	4.03	Park & Storm Drain Facilities
45. 1273 Devonshire Dr.	4.75	Park & Storm Drain Facilities
46. 1355 Northgate Dr.	12.92	Park & Drain Lift Facilities
47. 276 Almond Ave.	.14	Water Well No. 4
48. 801 E. Louise Ave.	.10	Water Well No. 14
49. 955 E. Edison St.	9.66	Park & Storm Drain Facility
50. 1061 Kyle Place	.06	Storm Drain Lift Station
51. 3100 Yosemite Ave.	301.00	Sewer Treatment Plant & Disposal
52. 1020 Mission Ridge Dr.	<u>3.07</u>	Storm Drainage & Park Facilities
Total	543.62	

Source: City of Manteca, April 1988

Unincorporated Planning Area

Most of the unincorporated Planning Area is rural and devoted to agricultural uses. The major exceptions are described in the following sections and include Sharpe Army Depot, the community of Lathrop, the Woodward/River area, the North River area, the Raymus Village Subdivision, and the San Joaquin Delta College Farm Laboratory. The features of the unincorporated area are shown in Figure I-6.

Sharpe Army Depot

Sharpe Army Depot, which covers 742 acres, is located near Lathrop, between Roth and Lathrop Roads near I-5. Sharpe Army Depot is one of 13 United States military supply and distribution depots and services ten western states, and the Pacific Ocean area. Sharpe Depot supplies spare parts for aircraft, tanks, trucks, and other military equipment to all Army facilities within its western supply area. No supply or distribution of weapons is handled through Sharpe Depot. On-base housing accommodations include thirty family units, six bachelor quarters, and 120 bunks for Army reservists.

There are only 45-50 military personnel stationed at Sharpe Depot. In addition, there are approximately 1400 civil service workers and 100 independent contracts employed at Sharpe. Since only military personnel is eligible for base housing, the vast majority of Sharpe employees live in surrounding areas. An estimated 400-500 employees live in the Manteca, Lathrop, French Camp, and Tracy areas. An additional 850 workers reside in the Stockton area, and approximately 100 live as far away as Modesto.

Sharpe Army Depot on-base facilities include a small medical clinic, a PX, a chapel, library, and a club with a restaurant, theatre, tennis courts, and baseball fields, a ten center, and trailer park. A commissary which is shared with the U.S. Navy, is located at Rough and Ready, about seven miles to the west of Sharpe.

Lathrop

The community of Lathrop lies in the northwestern part of the Planning Area. Identified as an intermediate center by the San Joaquin County General Plan, the community had a population of 4,700 in 1983 and is expected to increase to 7,942 by the year 2005. The 1980 Census indicates that Lathrop has a higher minority population, higher number of persons per household, more crowded housing, and a lower household income than San Joaquin County overall.

Lathrop is situated near several important transportation corridors: I-5 and the Southern Pacific and Western Pacific railroads all pass through the community. Of the total, 2,176 developed acres within the Lathrop Planning Area, 44 percent are public/quasi-public (including the Sharpe Army Depot), 20 percent are industrial, and 21 percent are residential. Approximately 2,157 acres are either agricultural or vacant.

Existing land use in the Lathrop Planning Area is shown in Figure I-7 and summarized in Table I-4.

TABLE I-4

EXISTING LAND USE¹
Lathrop Planning Area

Residential	458
Commercial	24
Industrial	440
Recreation	9
Public/Quasi Public ²	962
Roads & Streets	283
Total Developed 1980	2,176
Agriculture/Vacant	2,157
Total 1995 Plan Area	4,333

¹Net acres

²Includes: Sharpe Depot, railroad rights-of-way, utilities, ponds, schools, and churches.

Source: San Joaquin County Planning Department, January 1984

Incorporation of Lathrop is currently being explored, and an incorporation feasibility study was completed in February 1988.

Woodward/River Area

The southwestern corner of the Planning Area is a unique area that combines agriculture, delta land, recreational opportunities, and clustered pockets of



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0 1/4 1/2
Scale in Miles

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FIGURE I-5. CITY-OWNED PROPERTY

SEE TEXT FOR DESCRIPTION OF CITY-OWNED PROPERTY

Source: City of Manteca, September 1987

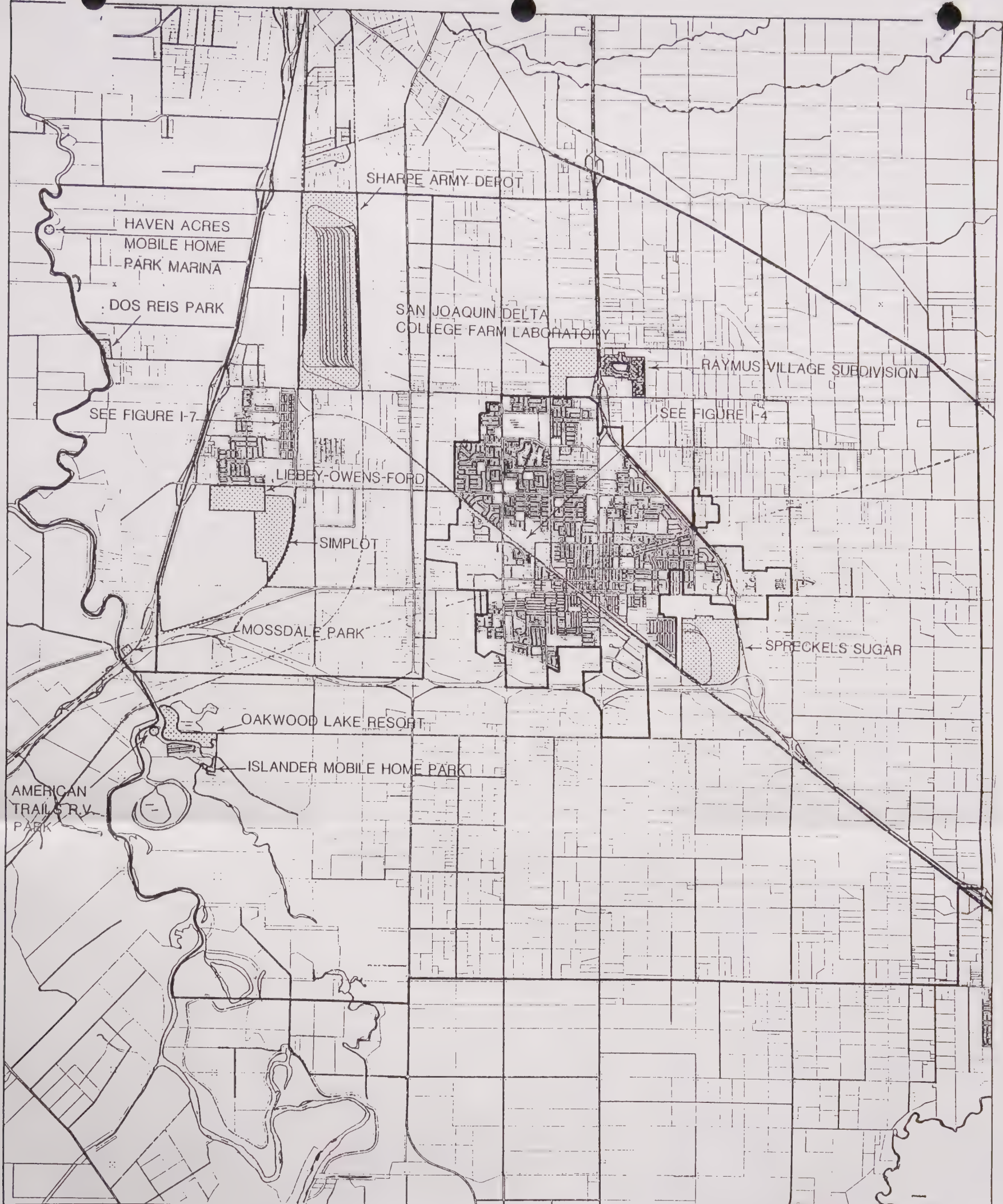


FIGURE I-6. EXISTING LAND USE - UNINCORPORATED PLANNING AREA

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SEE TEXT FOR DISCUSSION






Source: Mintier & Associates



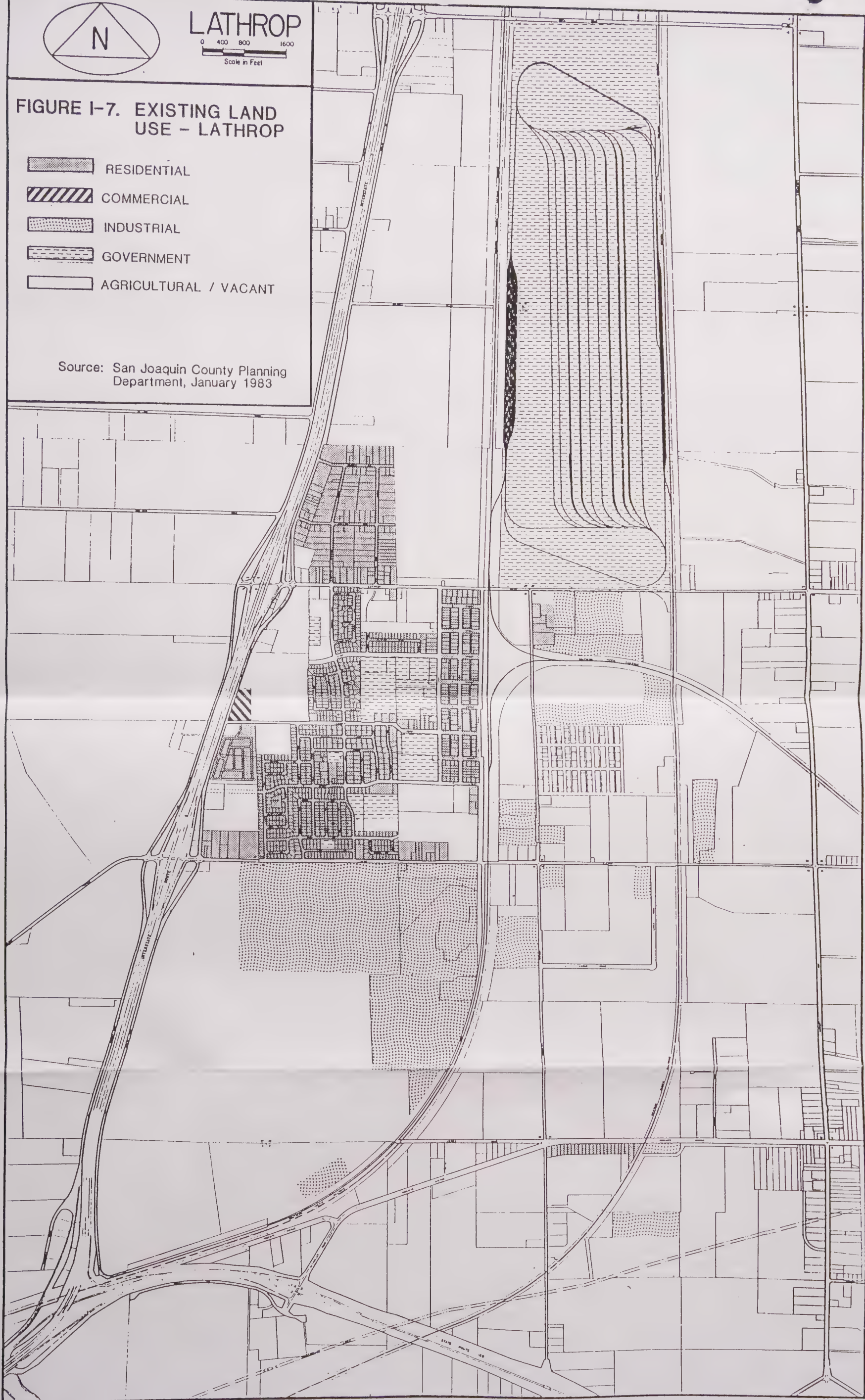
LATHROP

0 400 800 1600
Scale in Feet

FIGURE I-7. EXISTING LAND
USE - LATHROP

-  RESIDENTIAL
-  COMMERCIAL
-  INDUSTRIAL
-  GOVERNMENT
-  AGRICULTURAL / VACANT

Source: San Joaquin County Planning
Department, January 1983



residential development. One of San Joaquin County's primary tourist attractions is Oakwood Lake and Resort, located at the west end of Woodward Road. Facilities at Oakwood include R.V. campgrounds, picnic areas, a 60 acre lake with water skiing, waterslides, rapids rides, paddleboats and swimming, a country store, snack bar, arcade and game rooms, a townhall, entertainment complex, and baseball diamonds. Oakwood's R.V. campground is one of the largest in Northern California with over 450 tent and R.V. sites are equipped with full hook-ups. There are approximately 35 semi-permanent travel trailers in the R.V. park at Oakwood. A mobilehome park at the lake's edge has approximately 57 spaces, approximately 20 of which are occupied permanently.

Another resort facility, American Trails, is located several miles from Oakwood in the River area. This R.V. "membership" resort has 186 sites: 51 of those sites are equipped with full hookups, and the rest are designed for dry campers only (no electricity or water). Members are entitled to hookups without charge and guest privileges with extra charges. American Trails limits member stays to fourteen days, with at least seven days outside the park between stays. Facilities include a boat launching ramp and mooring, laundromat, and Country Store.

Between these two resorts, there is a mobilehome park and two older subdivisions. The Islander Mobilehome Park has 85 spaces, of which 43 are occupied permanently by mobilehomes and 42 are occupied semi-permanently by recreational vehicles. Facilities at the mobilehome park include a small store and bar/restaurant, docks and boat moorings, and a launching ramp. Two older subdivisions with about 92 lots are located between the Islander Mobilehome Park and the American Trails Resort. Originally developed as a summer resort area, most of the houses in this area are now occupied year round.

North River Area

Bordering the San Joaquin River north of I-5 are several significant developments. Just north of the junction of I-5 and the 120 By-pass along Mantney Road is Mossdale Park, which includes a boat launching ramp, a tot lot, restrooms, and picnic tables.

Farther north along the river at the west end of Dos Reis Road is Dos Reis Park, which includes a boat launching ramp, 20 R.V. spaces, toilet/shower facilities, and picnic tables.

Haven Acres Mobile Home Park Marina is located at the west end of Freewest Road. The mobilehome park includes 54 spaces, a restaurant, a boat launching ramp, and docks.

Raymus Village Subdivision

Raymus Village Subdivision lies just beyond the City of Manteca on the east side of Highway 99 and north side of Lathrop Road. Water, sewer, street lighting, and storm drainage facilities in the 322 lot subdivision are maintained by the Raymus Village Maintenance District. County Service Area No. 5 provides park maintenance and recreation services for the area.

San Joaquin Delta College Farm Laboratory

The 158 acre Farm Laboratory site was originally purchased by San Joaquin Delta College for a campus site. The development of a campus on the site has now been ruled out. The Farm Laboratory is a joint venture between San Joaquin Delta College and a number of public and private agribusiness organizations. The agribusiness organizations provide consulting services and some materials to the Farm Laboratory, and students at San Joaquin Delta College work and study at the laboratory as part of their agriculture related courses. The site is currently planted in grapes, almonds, other crops, and a portion of the site is used as pasture land.

The College intends to operate the site as long as there is funding for the facility.

LOCAL AGENCY FORMATION COMMISSION (LAFCO) AND SPHERES OF INFLUENCE (SOI)

In 1985, the various state laws regulating city and special district organization and annexations were consolidated in the Cortese/Knox Local Government Reorganization Act (Government Code Section 56000 et seq.).

The 1963 Knox-Nisbet Act, which was superseded by Cortese/Knox, created local agency formation commissions (LAFCOs) in each county in California to regulate the organization and extension of services provided by cities and special districts. The Act declares that "among the purposes of the commission are the discouragement of urban sprawl and encouragement of the orderly formation and development of local agencies based upon local conditions and circumstances. One of the objects of the commission is to make studies and to obtain and furnish information which will contribute to the logical and reasonable development of local agencies in each county development of local agencies so as to advantageously provide for the present and future needs of each county and its communities" (Government Code Section 56301). In meeting these responsibilities, each LAFCO is required "to review and approve or disapprove, with or without amendments, wholly, partially, or conditionally, proposals for changes of organization or reorganization" (Government Code Section 56475 (a)).

According to Section 56201 of the Government Code, "change of organization" means any of the following:

- o A city incorporation
- o A district formation
- o An annexation to, or detachment from, a city or district
- o A disincorporation of a city
- o A district dissolution
- o A consolidation of cities or special districts
- o A merger or establishment of a subsidiary district

The special districts that fall under LAFCO jurisdiction are defined in Government Code Section 56036. School districts and redevelopment agencies, among others, are not included within this definition and are, therefore, not subject to LAFCO review.

In addition to the regulatory responsibilities of LAFCO, the commission is empowered to initiate and to make studies of existing governmental agencies. These studies include, but are not limited to, inventorying local agencies and determining their maximum service areas and service capabilities. As the basis in part for making decisions about organizational changes and annexations, LAFCO must adopt a sphere of influence for each local agency subject to LAFCO regulation. The Cortese/Knox Act defines a sphere of influence as "a plan for the probable ultimate physical boundaries and service area of a local agency" (Government Code Section 56076). In practice, "ultimate" is typically defined as 20 years. This includes the identification of "Urban Service Area" boundaries which identify areas within a city's sphere of influence which are served by urban facilities, utilities, and services or which are proposed to be served during the first five years of an adopted capital improvement program. These boundaries shall be adopted in cooperation with the affected cities. Annexations by the affected city of land which falls within an identified 'urban service area boundary' may not be denied by the LAFCO which adopts the boundaries.

In determining the sphere of influence for each local agency, the LAFCO must consider and prepare a written statement of its determinations with respect to each of the following:

- o The present and planned land uses in the area, including agricultural and open space lands.
- o The present and probable need for public facilities and services in the area.
- o The present capacity of public facilities and the adequacy of services which the agency provides or is authorized to provide.
- o The existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency (Government Code Section 56425).

Once these spheres are adopted, LAFCO decisions must be consistent with applicable spheres (Government Code Section 56377.5). This means that LAFCO may not approve city annexations outside the adopted sphere of influence for the city.

The San Joaquin County LAFCO has adopted two sets of spheres of influence for local agencies with the Planning Area: one set for the Manteca area and another set for the Lathrop area.

The Sphere of Influence for the City of Manteca and Associated Urban Service Districts was adopted by the San Joaquin County Local Agency Formation Commission September 18, 1981. The sphere plan was prepared jointly by the City of Manteca and the San Joaquin County Local Agency Formation Commission and was based principally on the City and County general plans and the City's sewer, water, and drainage studies. Figure I-8 shows the adopted spheres of influence for the City of Manteca and the associated urban service districts.

In the Manteca area sphere plan, several service districts were given a "zero" Sphere of Influence to discourage further expansion. These districts include Raymus Village Maintenance District (water, sewer, street lighting,

and storm drainage), County Service Area No. 5 (parks and recreation), Bowling Green Estates Maintenance District (storm drainage), Country Estates Maintenance District (storm drainage), and the Summer Home Estates Street Lighting Maintenance District.

In adopting the Manteca area sphere plan, the LAFCO established the following policies "to foster understanding of these Spheres of Influence and to effectuate the goals and objectives of the Sphere of Influence plan":

1. Development of land within the City's Sphere of Influence should be time phased to promote planned orderly, efficient expansion of City services; consequently, premature development of such unincorporated land for urban or suburban use is discouraged.
2. Annexation to a district having a "Zero" Sphere of Influence shall not be approved by LAFCO unless the proposed development had otherwise been authorized, and City annexation is not possible.
3. Formation of a new district within the City Sphere of Influence shall be opposed by LAFCO unless the proposed development has been authorized and no feasible alternative for service exists.
4. The City is encouraged to develop long-range plans to provide City services throughout its Sphere of Influence and to take an active interest in solution of all governmental service problems within that boundary.
5. The City and Districts are encouraged to amend their boundaries or enter into inter-agency contracts to rationalize their service areas and improve efficiency and economy for those served.
6. Territory shall be detached from a special district upon annexation to the City, if the City commonly provides the same or similar service. Inter-agency contracts may be considered to reduce the impact on the District or the City.
7. Annexation of prime agricultural lands shall be discouraged by LAFCO unless the City demonstrates that the proposal is consistent with State Policy as provided by Section 54790.2 (now 56377) of the Government Code attached.
8. Annexation of Williamson Act contracted agricultural lands shall be discouraged by LAFCO unless said contract has been amortized to within one year of expiration or unless "city protest" will render the contract void under City annexation; further, provided that Policy 6 has been met.
9. The City is encouraged to prezone territory before submitting an application to LAFCO when the proposed annexation would result in substantial development. Prezoning is not necessary when annexing developed territory or when only minor development would result.

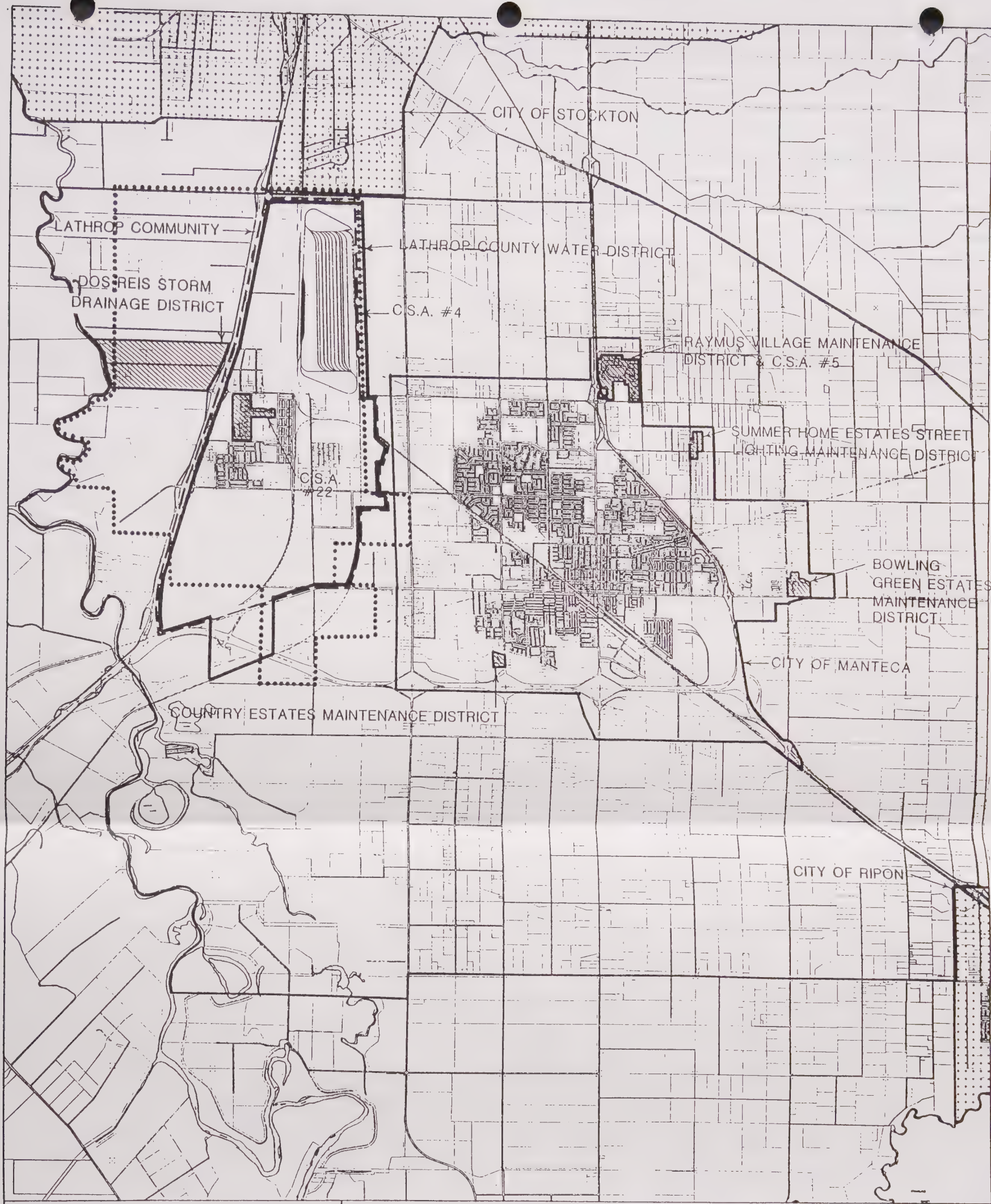
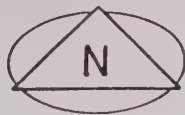


FIGURE I-8. SPHERES OF INFLUENCE ADOPTED BY
SAN JOAQUIN COUNTY LAFCO

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0 1/2 1 2
Scale in Miles

J. LAURENCE MONTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

SEE TEXT FOR DISCUSSION OF SPHERES

10. The City Sphere of Influence is only one factor to be considered by LAFCO when reviewing specific applications for boundary change. Other factors include evaluation of proposed development with regard to the need for City services, the City's ability to serve, the effect on adjacent local service agencies, the logical time-phasing for expansion of City facilities, the effect on planned open space and agricultural land, and other factors found pertinent.

The Sphere of Influence for the Community of Lathrop and associated special districts, the other major set of spheres within the Planning Area, was adopted by the San Joaquin LAFCO May 20, 1983. The sphere plan includes spheres for the Lathrop community (although not required by law) and for the Lathrop County Water District, County Service Area No. 4 (regional parks and recreation), County Service Area No. 22 (sewer service), and Dos Reis Storm Water District. The spheres for the Lathrop Community and these special districts are shown in Figure I-8. The services provided by these agencies are described in Chapter VI, Public Facilities and Services.

ANNEXATIONS

Annexations of land to cities are regulated by the Cortese/Knox Local Government Reorganization Act of 1985 (Government Code Sections 56000 et seq.). Generally, any land that is contiguous to a city in the same county may be annexed to the city if the annexation does not result in an island of unincorporated land completely surrounded by the city or in narrow strips of unincorporated land. Annexation procedures are outlined in Chart I-1.

Since its incorporation in 1918, the City of Manteca has grown through annexations to approximately 5,440 acres (8.5 square miles). Figure 1-9 depicts annexation growth by decade since 1960 and shows pending annexations. The City added approximately 1,430 acres by annexation during the 1960s; approximately 1880 acres during the 1970s; and 438 acres during the 1980s. The City has also annexed discontinuous territory, including 91 acres for the sewage disposal outfall and 54 acres for the sewer treatment plant.

As of September 1, 1987, the annexations shown in Table I-5 to the City of Manteca were pending approval.

CHART I-1

CORTESE-KNOX LOCAL GOVERNMENT REORGANIZATION ACT OF 1985 ANNEXATION/DETACHMENT/REORGANIZATION PROCEDURE DIAGRAM

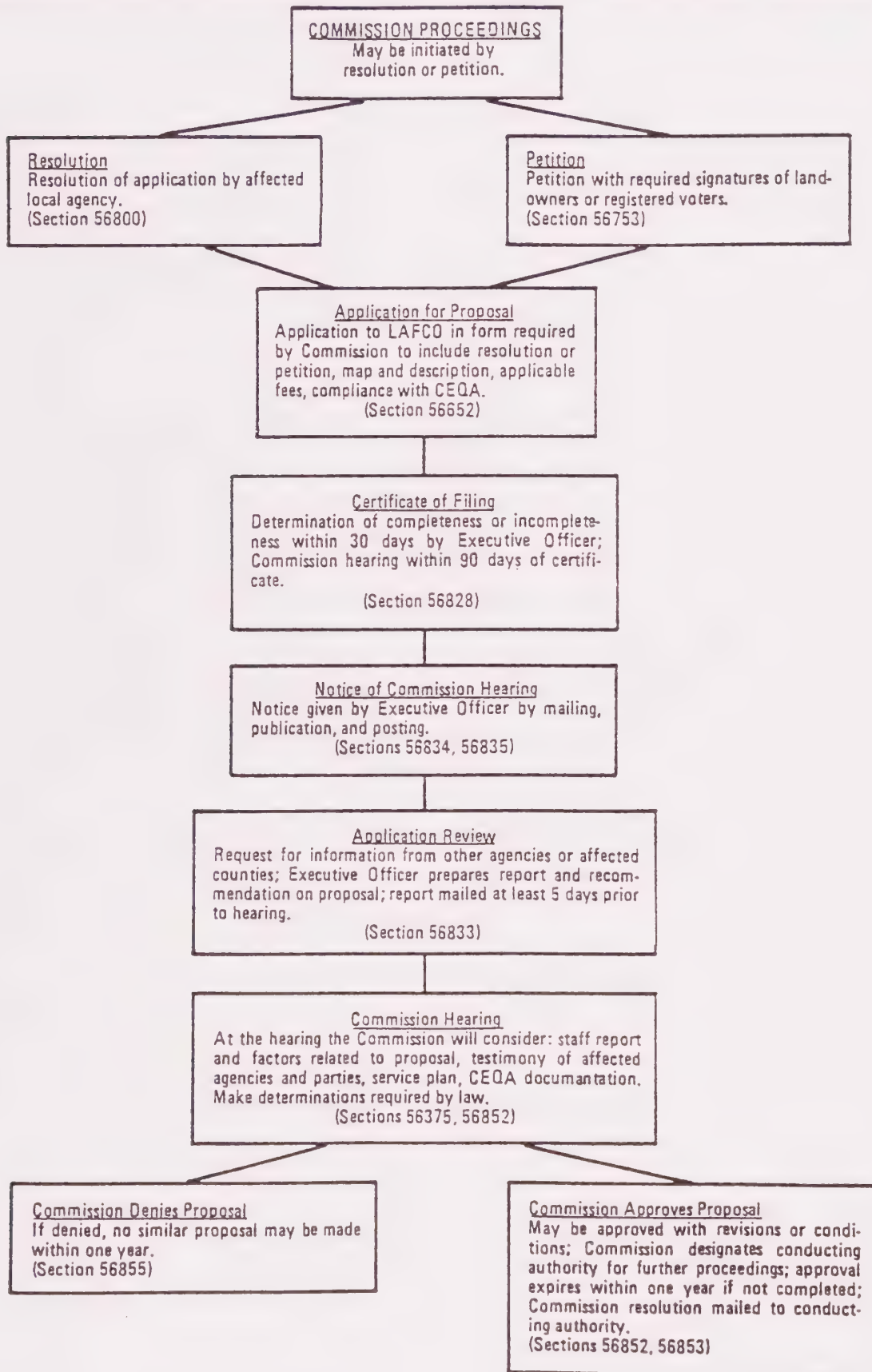
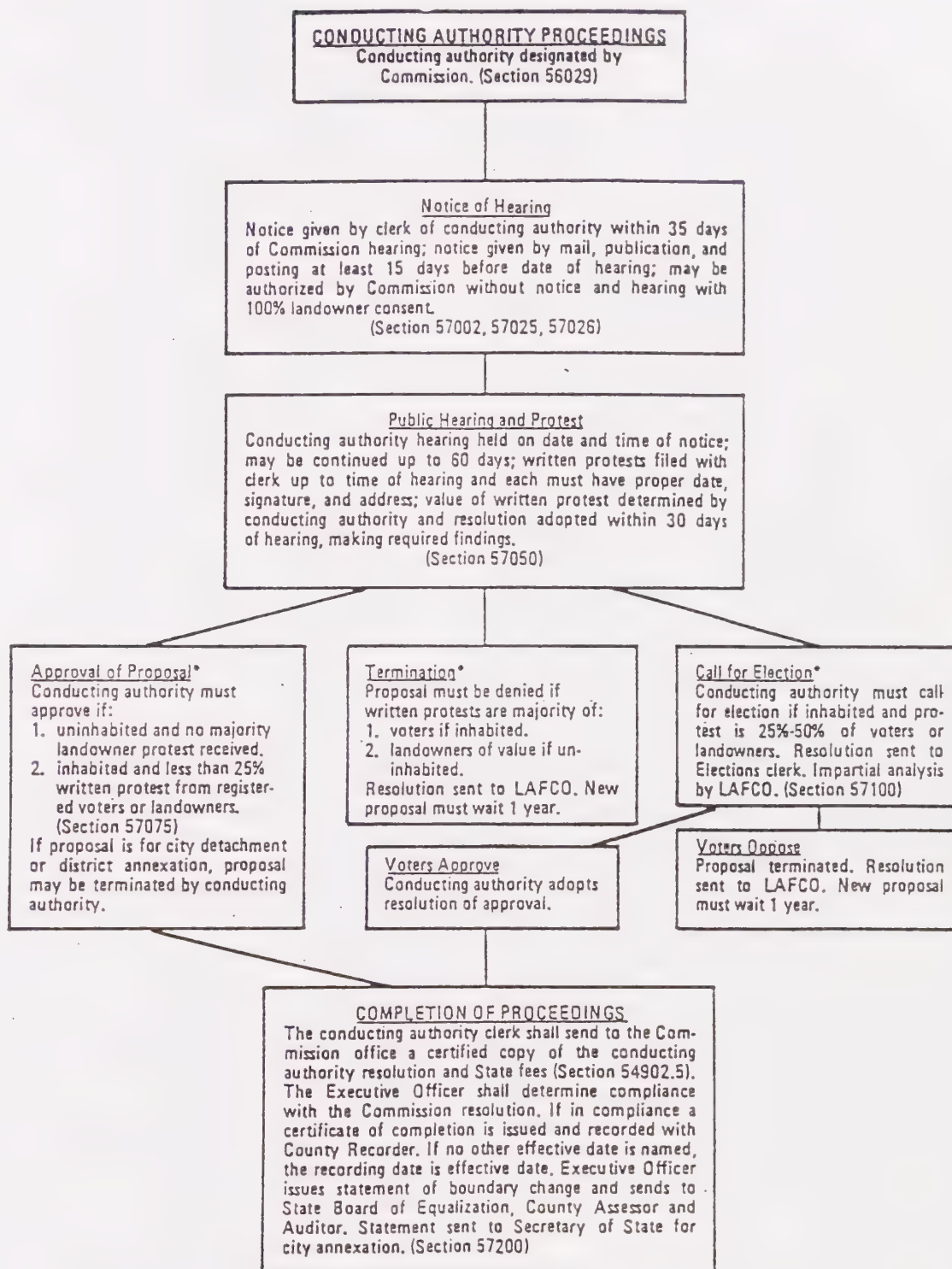


CHART I-1 (Continued)



All citations reference the California Government Code

*Protest provisions for changes of organization other than annexations, detachments, and reorganizations consisting solely of annexations and detachments are different. Please consult applicable sections of the law. If terminated due to protest or failure at an election, the waiting period for an incorporation or city consolidation is two years.

Source: Guide to Cortese/Knox Local Government Reorganization Act of 1985, Assembly Local Government Committee, October 1985

TABLE I-5**PENDING ANNEXATIONS
April 1988**

<u>No.</u>	<u>Annexation Name</u>	<u>Acres</u> <u>±</u>
1	Calvary Baptist-Lathrop Road	20
2	Raymus-Airport Way	149
3	Brocchini-Airport Way	124
4	Smith/Ruiz-Southland Road	32
5	Simpson/Reichmuth-Southland Road	110
6	Micheletos-Austin Road	215
7	Bianchi-Spreckels Road	174
8	Aretakis-South Main Street	70
9	Westvail Ranch-Louise Avenue	124
10	Rossi-Airport Way	369
11	Raymus-Highway 99	20
12	Atherton/Kirk-Woodward Road	120
Total Acreage		1,527

Source: City of Manteca, April 1988

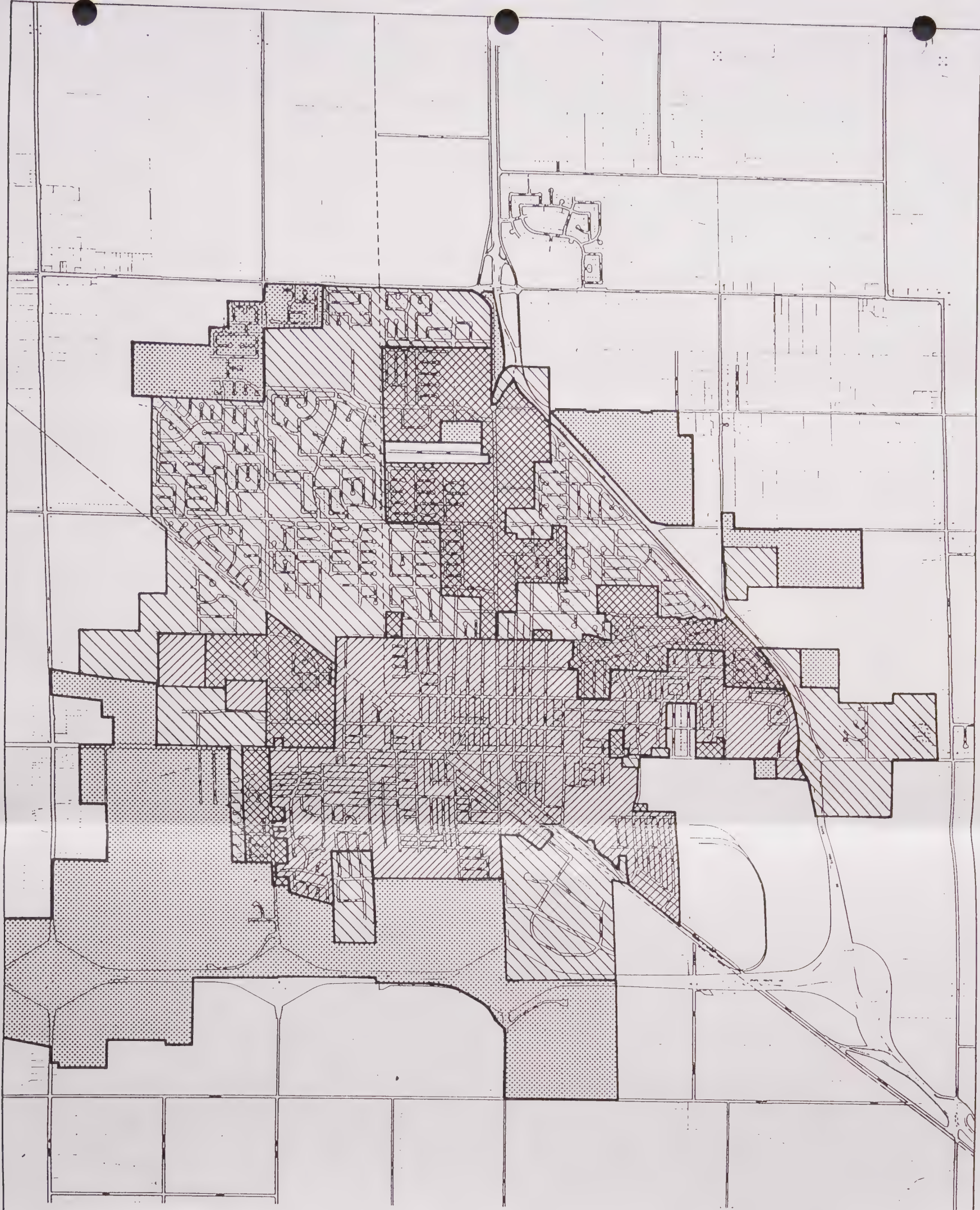
COUNTY PLANNING AND LAND USE REGULATION

The San Joaquin County General Plan and zoning regulate land use and development in the unincorporated Manteca Planning Area. The San Joaquin County General Plan comprises six elements: Land Use and Circulation (1976); Housing (1980); Open Space and Conservation (1973); Safety and Seismic Safety (1978); Noise (1978); and Scenic Highways (1978). The County is currently revising its General Plan. The Plan is expected to be released for public review in Fall 1988, with adoption by Summer 1989.

The County's Land Use and Circulation Element, adopted in 1976 and amended several times since, is the broadest of the policy documents and incorporates many of the policies adopted in the other elements of the General Plan. The Land Use and Circulation Element espouses a concentrated urban center concept tied to a policy of preserving agricultural lands. The following summarizes key policies of the County General Plan that are particularly relevant to Manteca's land use planning:

General Principles

1. The County will promote the separation of urban centers as physically distinct units through the preservation of open space and prime agricultural areas.
2. Necessary expansion of urban centers and all rural residential development will be facilitated in a manner least disruptive to the agricultural surroundings and resources.



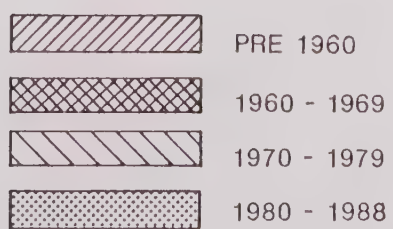
MANTECA
CALIFORNIA
General Plan



0 1/4 1/2
Scale in Miles

J. LAURENCE MINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

FIGURE I-9. ANNEXATION HISTORY



Source: City of Manteca, April 1988

3. Urban growth will take place in areas within and adjacent to urban centers, precluding further random skip and ribbon developments.
8. Development within the urban areas will be consistent with the principle of preserving open space.

Urban Residential Principles

7. Suburban residential development in unincorporated areas on the fringe of an incorporated urban center should be located only in areas which the city also plans for residential development of this density.

Rural Residential Principles

2. Rural Residential areas should be established only in agricultural areas where there are existing concentrations of small parcels, and should not be established within or on the fringe of designated urban growth areas.

Agricultural Principles

5. Further fragmentation of agricultural land outside of areas designated for urban expansion will be permitted only in areas designated for rural residential development.
6. The County will continue to implement the land conservation program by encouraging the establishment of contracts within agricultural preserves in accordance with the provisions of the Land Conservation Act of 1965, as amended, and the Rules and Procedures adopted by the Board of Supervisors.

The County's Land Use Diagram for the Manteca Area showing proposed land use through the year 1995, was based in part on Manteca's 1975 General Plan. In 1980, however, the City's 1995 plan was superseded by the General Plan Update which showed proposed land use through the year 2000. The City's 1981 land use plan devotes more area to urban uses than does the County's plan. This is true in virtually all fringe areas except east of Highway 99. Figure I-10 shows the County's land use plan for the unincorporated Manteca area.

The San Joaquin County General Plan designates Lathrop as an "intermediate center." This means that the community offers a limited number of services and activities to serve the more frequent needs of residents of the center and surrounding area, with Stockton and Manteca providing more specialized services. Figure I-11 shows the County land use plan for the Lathrop area. Table I-6 summarizes the proposed land uses depicted in Figure I-11.

TABLE I-6
PROPOSED LAND USE¹
Lathrop Area

Residential	603
Commercial	105
Industrial ²	2,926
Recreation	9
Public/Quasi Public	690
Total 1995 Plan Area	4,333

¹Gross acres projected to 1995

²Includes Sharpe Army Depot

Source: San Joaquin County Planning Department, January 1984

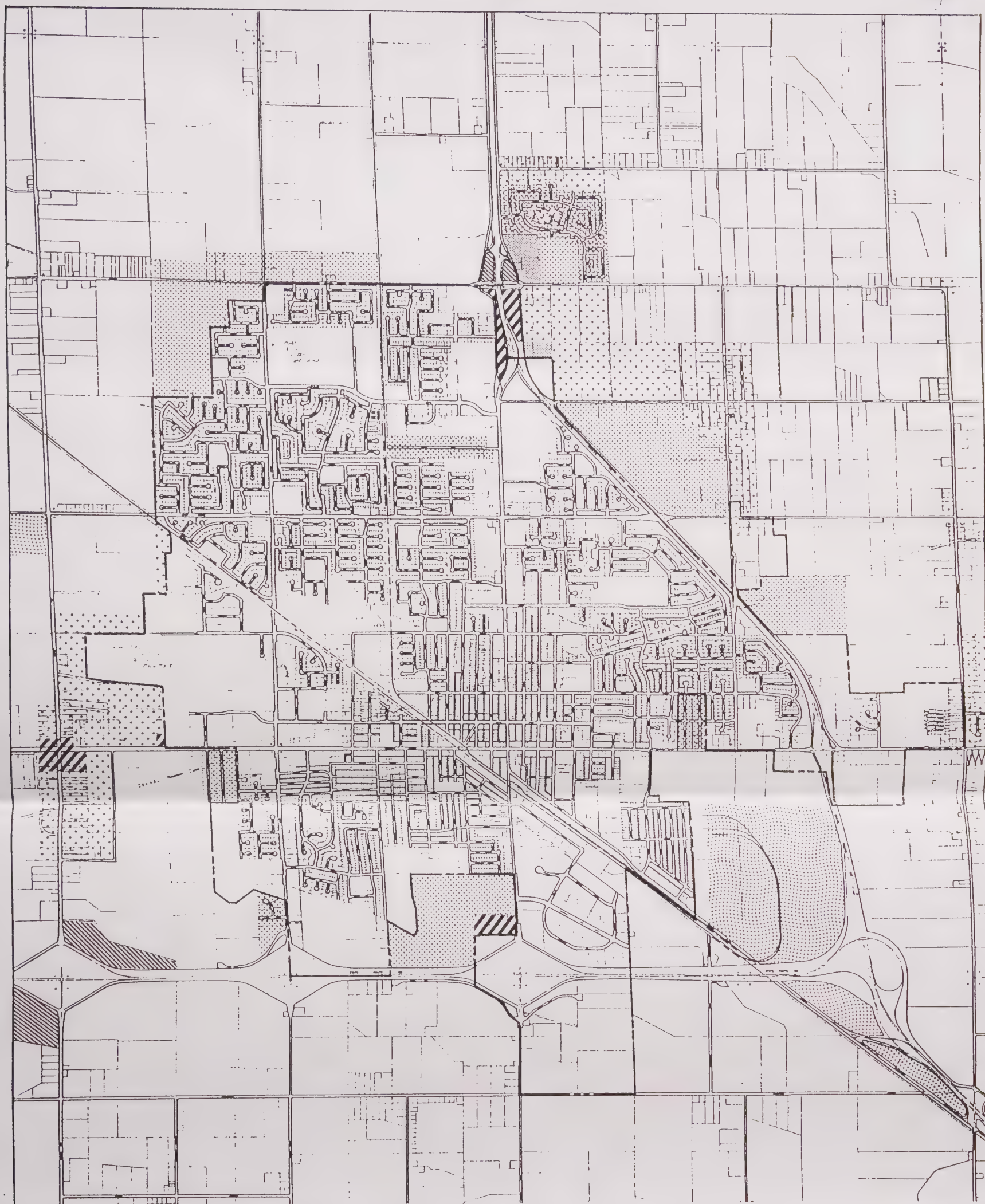
REGIONAL PLANS

Regional plans affecting the Manteca area include the Housing Needs Assessment prepared by the San Joaquin County Council of Governments, the San Joaquin County Transportation Improvement Plan prepared by the San Joaquin County, and the County Solid Waste Management Plan prepared by San Joaquin County. The Regional Housing Needs Assessment is described in Chapter II, Housing, and the Transportation Improvement Plan is discussed in Chapter V, Transportation.

Under the requirements of the Solid Waste Management and Resource Recovery Act of 1972, each county must prepare and implement a solid waste management plan (Government Code Sections 66700 et seq.). Counties, with the concurrence of a majority of the cities containing a majority of the incorporated population of the counties, must adopt these plans and submit them to the State Waste Management Board for review and approval as to their consistency with state policy. (Government Code Section 66780.1).

County solid waste management plans identify existing types and quantities of wastes and estimate future quantities, including:

- (a) Residential, commercial, institutional, agricultural (i.e., crop residues and animal wastes), woodwastes, industrial, construction/demolition, and mining wastes, as well as sewage sludge, septic tank pumpings, and street sweepings.
- (b) The estimated quantity of special types of solid wastes such as abandoned automobiles, vehicle tires, bulky items, and wastes in the form of liquids, semisolids, and slurries entering solid waste handling and disposal systems.
- (c) An estimate of the extent of the litter problem.










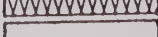
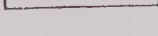

MANTECA CALIFORNIA General Plan



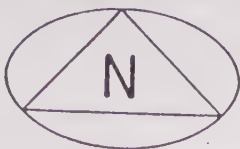
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Scale in Miles

J. LAURENCE MINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

FIGURE I-10. SAN JOAQUIN COUNTY GENERAL PLAN -
MANTECA AREA

-  SUBURBAN DENSITY RESIDENTIAL
-  LOW DENSITY RESIDENTIAL
-  MEDIUM DENSITY RESIDENTIAL
-  COMMERCIAL SERVICE
-  HIGHWAY SERVICE COMMERCIAL
-  RECREATION
-  GENERAL INDUSTRIAL
-  EDUCATIONAL FACILITIES
-  AGRICULTURE
-  MANTECA CITY LIMITS









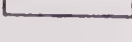
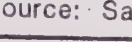

Source: San Joaquin County General Plan, as amended July 1983



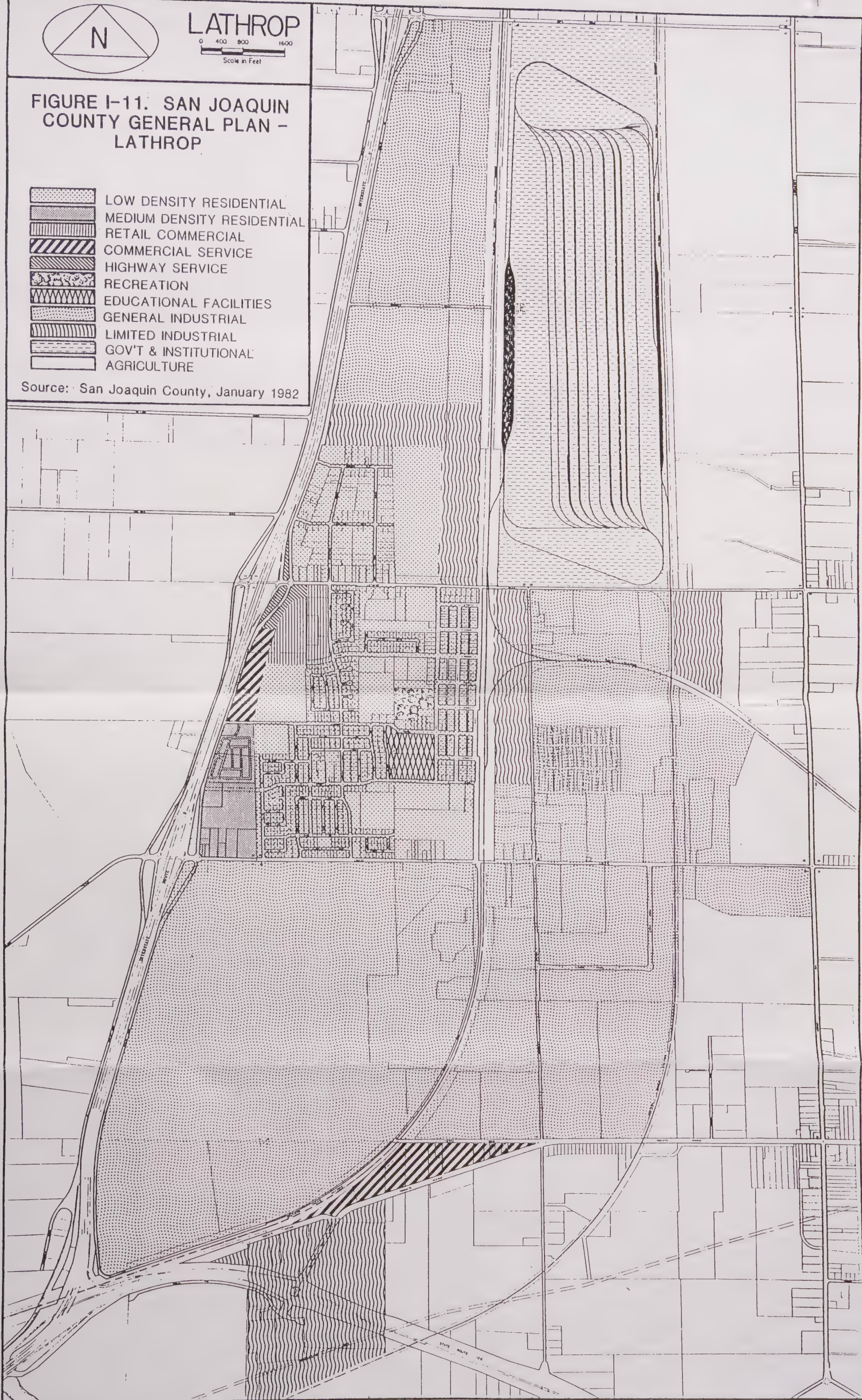
LATHROP

0 400 800 1600
Scale in Feet

FIGURE I-11. SAN JOAQUIN
COUNTY GENERAL PLAN -
LATHROP

-  LOW DENSITY RESIDENTIAL
-  MEDIUM DENSITY RESIDENTIAL
-  RETAIL COMMERCIAL
-  COMMERCIAL SERVICE
-  HIGHWAY SERVICE
-  RECREATION
-  EDUCATIONAL FACILITIES
-  GENERAL INDUSTRIAL
-  LIMITED INDUSTRIAL
-  GOV'T & INSTITUTIONAL
-  AGRICULTURE

Source: San Joaquin County, January 1982



- (d) An estimate of hazardous waste generation and disposal as identified and defined by the State Department of Health Services (Title 14, California Administrative Code Section 17131).

For each of these wastes, the plans identify short, medium, and long-term management objectives and measures in terms of:

- o Storage of wastes for collection;
- o Collection system;
- o Disposal and processing of wastes; and,
- o Resource recovery.

(Title 14, California Administrative Code Sections 17130, 17132, 17133, 17134, and 17135)

Once the plan has been adopted by the county and approved by the State Waste Management Board, it governs the approval of solid waste management facilities and their federal and state funding. The Board may only approve those requests for state or federal funds for solid waste management projects that conform to the county plans (Government Code Section 66782). No one can establish or operate a site for solid waste disposal, transfer, waste processing, or resource recovery that does not conform to a State-approved county plan (Government Code Section 66784). Nonprofit, private resource recovery sites (e.g., recycling centers) approved by a local government are exempt from this requirement, but state agencies are not (Government Code Section 66781).

State law ensures that county solid waste management plans and local general plans are closely coordinated by prohibiting the State Waste Management Board from approving a county solid waste management plan, revision, or plan amendment unless the county and each city in which a solid waste facility site or potential site has been designated makes a finding that the plan is consistent with its general plan [Government Code Section 66780.2(a)]. The law goes on to say this finding can be made only if three conditions are met:

- (1) The city or county has adopted a general plan which complies with the requirements of Article 5 (commencing with Section 65300) or Chapter 3 or Division 1 of Title 7.
- (2) Any site designated in the county solid waste management plan as a site, or as a potential site, for a solid waste facility is also designated in the applicable city or county general plan as a site or potential site for such a facility.
- (3) The land uses authorized in the applicable city or county general plan adjacent to, and near, any site designated in the general plan as a site or as a potential site for a solid waste facility, are compatible with the establishment or expansion of the site.

Provisions governing approval of individual solid waste facility projects buttress the requirement for consistency between the county solid waste management plans and local general plans. Before the State Board can concur in the issuance of a permit for establishing or expanding a solid waste facility, the city or county in which the facility is or will be located must make a finding that the facility is consistent with its general plan [Government Code Section 66784.1(a)]. The finding can only be made if the city or county has adopted an adequate general plan and two additional conditions are met:

- (1) The site is designated in the applicable city or county general plan as a site for any solid waste facility or as a potential site for a solid waste facility
- (2) The land uses authorized adjacent to and near the site are compatible with the establishment or expansion of the site.
[Government Code Section 66784.1(b)]

Waste-to-energy facilities are exempt from the requirement in (1) if the site of the facility is zoned for such use in conformity with the general plan. Changes to solid waste facility permits must similarly be consistent with the applicable general plan [Government Code Sections 66796.32(d)] and 66796.34(a).

Once a solid waste facility site has been designated in a general plan, the city or county with jurisdiction may not approve any land use adjacent to or near the site that would preclude establishment of a solid waste facility or the planned expansion of a facility [Government Code Section 66784.1(c)].

The only major solid waste facility in the Manteca Planning Area is the Lovelace Transfer Station, located on Lovelace Road, between Union Road and Airport Way, northeast of Lathrop. Waste collected at Lovelace is ultimately hauled to the Foothill Landfill; there is currently no reclamation of reusable materials at Lovelace.

Two landfills in the Planning Area have been closed. A landfill on Union Road, closed in 1959, is now the site of the City's Municipal Golf Course. A second site, located on Main Street south of Manteca, was closed in 1962.

MAJOR REGIONAL DEVELOPMENTS

This section reviews a number of major developments outside the Planning Area that have implications for Manteca.

Stockton

Growth pressures in Stockton during recent years have focused on Stockton's northern fringe, north of the Calaveras River. While citywide population growth in Stockton averaged 1.3 percent annually during the 1960s and 1.7 percent annually during the 1970s, population north of the Calaveras River almost quadrupled from 22,805 in 1960 to 86,631 in 1980. By contrast, Stockton has experienced a net loss of population south of the Calaveras River. This northern shift is also reflected in the relocation of many downtown businesses to the Hammer Lane area. The City's General Plan projects these trends to continue well into the future.

Measure A, passed by Stockton voters in 1978, sought to promote infill development and restrict development in outlying areas, principally at the northern end of town. Voter approval was required for all general plan amendments. However, the Stockton City Council has repealed Measure A, effective July 31, 1988. This action will allow the City to amend the General Plan without voter approval.

Tri-Valley Area

Employment and population growth in the Tri-Valley Area--framed by Pleasanton, Livermore, and Dublin--has been explosive in recent years. Since 1970, population and housing in this area have almost doubled, and employment has nearly tripled. Based only on approved projects in the area, an additional 90,600 jobs will be created. At full buildout of all projected projects, there is expected to be a housing shortfall of approximately 23,500 units in the Tri-Valley area. As housing prices escalate in the Tri-Valley area, workers are seeking homes in the Tracy and Manteca areas. Tri-Valley job growth will, therefore, continue to place increasing pressure on Manteca's housing stock.

Tracy

Situated strategically in a triangle composed of major freeways I-5, I-205, and I-580, Tracy lies in the path of Tri-Valley growth pressures. The recent annexation of 2,200 acres on the northern edge of Tracy and completion of \$23 million sewage treatment expansion to service that area have laid the foundation for major development. The City of Tracy expects that 8,500 new low and medium density housing units will be built in the next five to seven years, in conjunction with the development of 650 acres of office/industrial facilities and several hundred acres of supporting commercial development.

According to a study completed in 1987 by the San Joaquin County Council of Governments, Tracy will double in size in twenty-five years, reaching a population of 69,700 by the year 2010.

Modesto

Situated near the northern boundary of Stanislaus County, Modesto lies within easy commute distance of Manteca and other San Joaquin County cities.

Modesto has increased its share of the county's population from 23.25 percent in 1960 to an estimated 42.22 percent in 1985. The fastest growing city in Stanislaus County during the 1960s, Modesto declined to the third fastest growing city during the 1970s. During the period 1980 to 1985 Modesto dropped to sixth place (out of twelve) with a still-impressive average annual growth rate of 3.57 percent.

FINDINGS

- o While growth has historically occurred in all directions from the city's original core, the greatest growth pressures in recent years have been toward the northwest, northeast, and southwest. The completion of the 120 By-pass has prompted growth pressures in the southern fringe of the city.
- o Manteca imposed a building moratorium in 1985 when sewage flows began to exceed sewage plant capacity at peak periods. The moratorium was subsequently lifted with completion of the sewer plant expansion, however, concerned about the ability of the City's services to keep pace with growth, the City developed a Growth Management Program. The Growth Management Program sets a long-term maximum residential growth rate of 3.9 percent annually.
- o While Lathrop clearly has a separate identity, public facility issues are prompting consideration of increasing ties between Lathrop and the City of Manteca. Whether or not the current incorporation attempt is successful, the future relationship between Lathrop and Manteca will continue to be an issue requiring close attention.
- o Growth in the Tri-Valley area will continue to place increasing pressure on Manteca to provide housing for Tri-Valley workers. Manteca must decide what role it wishes to play in providing housing for these workers.

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PERSONS CONTACTED

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Sanguinetti, Phil, Planning Director, City of Manteca Planning Department

Scott, Jerry, Executive Director, San Joaquin County Local Agency
Formation Commission

GLOSSARY

General Plan - A comprehensive, long-term policy document adopted by a city or county to guide land use and development. The general plan must include seven elements, including land use, circulation, housing, conservation, open space, noise, and safety.

LAFCO - Local Agency Formation Commission

Planning Area - The study area for a general plan and/or an area for which land use is shown in a general plan. The planning area does not necessarily represent the area which the city plans to ultimately annex.

Sanitary Landfill - "A disposal site employing an engineered method of disposing of solid wastes in a manner that minimizes environmental hazards by spreading, compacting to the smallest practical volume and applying cover material over all exposed wastes at the end of each operating day" (Title 14, California Administrative Code Section 17225.62)

Sphere of Influence - "A plan for the probable ultimate physical boundaries and service area of a local agency" (California Government Code Section 56076)

Transfer/Processing Station - "Includes those facilities utilized to receive solid wastes, temporarily store, separate, convert, or otherwise process the materials in the solid wastes, or to transfer the solid wastes directly from smaller to larger vehicles for transport. Transfer/processing station--does not include any facility the principal function of which is to receive, store, separate, convert, or otherwise process, in accordance with state minimum standards, manure; nor does it include any facility, the principal function of which is to receive, store, convert, or otherwise process wastes which have already been separated for reuse and are not intended for disposal" (Government Code Section 66723)

Zoning - A local ordinance that divides a community into districts and specifies allowable uses and development standards for each, consistent with the adopted general plan.

CHAPTER II. HOUSING

CHAPTER II

HOUSING

INTRODUCTION

Under the requirements of state law, every city and county in California must prepare a housing element as part of its general plan. The housing element must document in detail the existing housing stock and its condition and must assess existing and projected housing needs. Responding to these requirements, this chapter profiles Manteca's housing stock, assesses existing and projected needs, analyzes resources available to meet these needs, and reviews governmental and non-governmental constraints on the production of affordable housing. Appendices to this chapter summarize available housing programs and special state housing requirements.

HOUSING STOCK PROFILE

Housing Stock Growth and Composition

Manteca's housing stock grew by 1,775 units during the 1960s, by 1,818 units during the 1970s, and by 3,627 units between 1980 and 1987. According to California Department of Finance estimates, Manteca had 12,792 housing units as of January 1, 1987. Table II-1 shows how Manteca's housing stock has grown and changed since 1960.

TABLE II-1

CHANGES IN HOUSING STOCK COMPOSITION¹
Manteca

	<u>Total Units</u>	<u>Single Family (%)</u>	<u>Multi-Family 2 to 4 Units(%)</u>	<u>Multi-Family 5+ Units (%)</u>	<u>Mobile homes</u>
1960	2,642				
1970	4,417				
1975	6,235				
1980	9,165	6,832 (74.5)	630 (6.9)	1,264 (13.8)	439 (4.8)
1981	9,419	7,010 (74.4)	681 (7.2)	1,274 (13.5)	454 (4.8)
1982	9,659	7,205 (74.6)	687 (7.1)	1,274 (13.2)	493 (5.1)
1983	9,822	7,359 (74.9)	697 (7.1)	1,274 (13.0)	492 (5.0)
1984	10,234	7,751 (75.7)	704 (6.9)	1,285 (12.6)	494 (4.8)
1985	11,398	8,374 (73.5)	732 (6.4)	1,797 (15.8)	495 (4.3)
1986	12,315	8,763 (71.2)	768 (6.2)	2,287 (18.6)	497 (4.0)
1987	12,792	9,057 (70.8)	776 (6.1)	2,468 (19.3)	491 (3.8)

¹1981-1987 figures are California Department of Finance estimates for January 1 of each year.

Source: U.S. Census 1980 (STF 3); California Department of Finance

As Table II-1 indicates, the composition of the city's housing stock changed only slightly between 1980 and 1987. Single-family homes decreased from 74.5 percent of Manteca's housing stock in 1980 to 70.8 percent in 1987.

Multi-family units increased over the same period from 20.7 percent to 25.4 percent. While the number of mobilehomes increased, their share of the total housing stock dropped from 4.8 percent to 3.8 percent.

The Consultant Team estimated that, in addition to those units within the city limits, there were approximately 3,850 housing units in the unincorporated Planning Area in January 1986. Approximately 1,200 of these units were located in the community of Lathrop.

According to City records, the City issued building permits for 2,474 single family units and 1,493 multi-family units between 1980 and 1987. During the same period the City issued 48 demolition permits.

TABLE II-2
RESIDENTIAL BUILDING & DEMOLITION PERMITS
Manteca
1980-1987

	<u>Single Family</u>	<u>Multi-Family</u>	<u>Total New Units</u>	<u>Demolitions</u>
1980	264	69	333	5
1981	200	6	206	9
1982	234	42	276	4
1983	400	233	633	8
1984	652	604	1,256	4
1985	302	427	729	5
1986	245	--	245	8
1987	177	112	289	5
Total	2,474	1,493	3,967	48

Source: City of Manteca Building Department

Housing Tenure

According to the 1980 Census, Manteca and San Joaquin County were very similar in terms of the proportions of owner-occupied and renter-occupied housing. In both cases, approximately 60 percent of occupied units were owner occupied. This ownership rate was slightly above the statewide rate of 55.9 percent. Table II-3 shows the housing tenure mix of Manteca's and San Joaquin County's housing units according to the 1980 Census.

The number of persons per housing unit can offer insight into the type of housing demand which exists in a particular market. Table II-7 summarizes 1980 Census information regarding the number of persons in Manteca's housing units. As the table indicates, the highest percentage of units had two residents (30.4 percent) and the median number of residents was about 2.6. While San Joaquin County as a whole had comparably-sized units, it had a smaller median number of persons per unit, with about 2.3.

TABLE II-7

PERSONS IN UNITS
Manteca
1980

	<u>Number of Units</u>	<u>Percent</u>
1 Person	1,549	18.0%
2 Persons	2,615	30.4%
3 Persons	1,630	19.0%
4 Persons	1,654	19.2%
5 Persons	727	8.5%
6 or More Persons	417	4.9%
Occupied Units	8,592	100.0%
Median Persons Per Unit	2.58	
Mean Persons Per Unit	2.87	

Source: U.S. Bureau of the Census

D.O.F also provides annual estimates of population per household. Table II-8 shows D.O.F.'s estimates for the years 1981 through 1987. As the table indicates, Manteca's household size has remained consistently higher than the county's throughout the 1980's.

TABLE II-8

POPULATION PER HOUSEHOLD
Manteca and San Joaquin County
1981 through 1987

<u>Year</u>	<u>Manteca</u>	<u>San Joaquin County</u>
1981	2.89	2.72
1982	2.92	2.75
1983	2.96	2.77
1984	3.00	2.80
1985	2.98	2.80
1986	2.98	2.82
1987	3.01	2.85

Source: California Department of Finance, Controlled County Population Estimates, San Joaquin County, 1981-1987.

The U.S. Census Bureau defines overcrowding as more than one person per room in a housing unit. As indicated in Table II-9, in 1980, Manteca showed a lower proportion of overcrowded units (4.5 percent) than either the county (6.3 percent) or the state (7.4 percent).

TABLE II-9
OVERCROWDING*
Manteca and San Joaquin County
1980

		<u>Total Units</u>	<u>Owner Occupied</u>	<u>Renter Occupied</u>
Manteca	Total occupied units	8,592	5,225	3,367
	Overcrowded	387	151	236
	% Overcrowded	4.5%	2.9%	7.0%
San Joaquin County	Total occupied units	124,626	75,145	49,481
	Overcrowded	7,905	3,095	4,846
	% Overcrowded	6.3%	4.1%	9.8%

*Overcrowded = 1.01+ persons per room

Source: U.S. Bureau of the Census

Housing Age and Conditions

Manteca is a relatively new town and its housing stock reflects this fact. Table II-10 indicates that in 1980, 48.5 percent of Manteca's housing units had been constructed during the 1970's and 70.6 percent had been constructed since 1960. In comparison, only 5.4 percent of the housing stock had been constructed before 1940.

TABLE II-10
HOUSING UNIT AGE
1980

<u>Decade of Construction</u>	<u>Total</u>		<u>Total Occupied</u>		<u>Occupied Rentals</u>		<u>Occupied Ownership</u>	
1970-1979	4,449	48.5%	4,155	48.4%	1,568	46.6%	2,587	49.5%
1960-1969	2,028	22.1%	1,919	22.3%	796	23.6%	1,123	21.5%
1950-1959	1,594	17.4%	1,490	17.3%	518	15.4%	972	18.6%
1949-1949	595	6.5%	559	6.5%	245	7.3%	314	6.0%
Before 1940	499	5.4%	469	5.5%	240	7.1%	229	4.4%
Total	9,165		8,592		3,367		5,225	

Source: U.S. Bureau of the Census, 1980

The relatively recent construction of Manteca's housing has resulted in a stock which is generally in very good condition. There are very few structures which are in substandard condition, as was indicated by a July 1984 housing condition survey which the City conducted. The sample area was bounded on the north by Yosemite Avenue, on the south by the city limits, on the west by Locust Avenue, and on the east by South Main Street. According to the 1984 Housing Element of the City of Manteca General Plan, this area contains most of the older housing in the city.

The 1984 survey evaluated 464 residential structures, of which 436 (94.0 percent) were single family homes, twenty (4.3 percent) were duplexes or triplexes, and eight (1.7 percent) were in apartment buildings with more than four units. The survey classified each unit into one of five categories (see Table II-11). Approximately two-thirds of the units evaluated were structurally sound with only minor maintenance deficiencies. Over a fifth (22.4 percent) of the units surveyed were identified as structurally sound and well maintained. Only 6 of the 464 structures (1.3 percent) required major structural rehabilitation. The survey also showed the structures most in need of rehabilitation were dispersed throughout the sample area, not concentrated together. The survey's most significant conclusion was that the area of Manteca most likely to contain deficient housing is in generally good condition.

TABLE II-11
RESIDENTIAL HOUSING CONDITIONS
Manteca
1984

	<u>Sound</u>	<u>Minor Maintenance Deficiencies</u>	<u>Minor Structural Deficiencies</u>	<u>Major Structural Deficiencies</u>	<u>Beyond Repair</u>
Number	104	289	65	6	0
Percent	22.4%	62.3%	14.0%	1.3%	0

Source: City of Manteca Planning Department, July 1984

Based on this survey and considering the relatively recent construction of most of Manteca's housing, only about one percent of the city's total housing stock (or about 128 units) should be assumed to have major structural deficiencies. Housing in the unincorporated part of the Planning Area, however, is generally older than housing in Manteca and is in poorer condition.

Housing Costs and Overpayment

The 1980 Census indicated that the median house value in Manteca was \$59,200 (see Table II-12). By comparison, the median house value in San Joaquin County was \$56,400. In 1980 Manteca homeowners were paying median monthly housing costs of \$358 (including mortgage, taxes, insurance, and utilities) and San Joaquin homeowners were paying median monthly housing costs of \$340.

TABLE II-12
HOUSING UNIT VALUE
Manteca
1980

<u>Value</u>	<u>Number</u>	<u>Percentage</u>
Less than \$10,000	18	0.4%
\$10,000 - \$14,999	44	1.0%
\$15,000 - \$19,999	54	1.2%
\$20,000 - \$24,999	86	1.9%
\$25,000 - \$29,999	119	2.7%
\$30,000 - \$34,999	159	3.6%
\$35,000 - \$39,999	207	4.6%
\$40,000 - \$49,999	769	17.2%
\$50,000 - \$79,999	2,570	57.3%
\$80,000 - \$99,999	367	8.2%
\$100,000 and over	91	2.0%
Total	4,484	100.0%
Median Housing Value	\$59,200	

Source: U.S. Bureau of the Census

According to the Multiple Listing Service of the San Joaquin County Board of Realtors, the average sales price for a home in the Modesto/Turlock/Manteca area in 1985 was approximately \$78,800. The Consultant Team surveyed the classified and real estate ads in the Manteca Bulletin during November 1985. Table II-13 summarizes the results of the survey. Listings for lots with more than one house and for houses on large lots (i.e., greater than one acre) were not included in the survey.

TABLE II-13
MEDIAN HOUSE PRICES*
Manteca
November 1985

<u>One Bedroom</u>	<u>Two Bedroom</u>	<u>Three Bedroom</u>	<u>Four Bedroom</u>
\$49,000	\$65,000	\$86,200	\$117,250

*These are asking prices, not sales prices.

Source: Consultant Team Survey of classified and real estate ads in the Real Estate Review section of the Manteca Bulletin during November 1985.

According to the 1980 Census, Manteca renters were paying a median gross rent (including utilities) of \$262 and median contract rent of \$219 per month,

while San Joaquin County renters were paying gross rent of \$223 and median contract rent of \$187 per month. The Consulting Team survey of classified ads in the Manteca Bulletin revealed significant increases in rental rates since 1980, as shown in Table II-14.

TABLE II-14

MEDIAN RENTAL PRICES*

Manteca
November 1985

<u>Studio</u>	<u>One Bedroom</u>	<u>Two Bedroom</u>	<u>Three Bedroom</u>	<u>Four Bedroom</u>
N/A	\$325.00	\$400.00	\$600.00	\$700.00

*Includes both single family homes and apartments.

Source: Consultant Team Survey of classified ads in the Real Estate Review section of the Manteca Bulletin during November 1985.

According to the 1980 Census, 48 percent of all renter households were paying more than 25 percent of their income for housing, while only 28 percent of all homeowner households were paying more than 25 percent.

In 1979 median household income in San Joaquin County was \$16,071 (for the purposes of analyzing overpayment, the county's median income is used instead of Manteca's). This placed the upper limit of low income (80 percent or less of median income) at \$12,857.

According the California Department of Housing and Community Development's formula for calculating low-income overpayment, 11.0 percent (495) of Manteca's low-income homeowner households were overpaying, and 39.2 percent (1,292) of the city's low-income renter households were spending more than 25 percent of their income for housing.

TABLE II-15

HOUSEHOLD INCOME BY SELECTED MONTHLY COSTS AS A PERCENT OF INCOME

Manteca
1980

Rent as % of Income	<u>0-4,999</u>	<u>5,000-9,999</u>	<u>10,000-14,999</u>	<u>15,000-19,999</u>	<u>20,000+</u>
0-19%	20	182	189	385	1,875
20-24%	6	44	51	113	365
25-34%	49	42	112	171	334
35%+	163	122	96	99	41
Not computed	31	--	--	--	--

Source: U.S. Census Bureau, 1980

TABLE II-16

HOUSEHOLD INCOME BY GROSS RENT AS PERCENT OF INCOME
Manteca
1980

Rent as % of Income	<u>0-4,999</u>	<u>5,000-9,999</u>	<u>10,000-14,999</u>	<u>15,000-19,999</u>	<u>20,000+</u>
0-19%	-	21	152	280	760
20-24%	7	95	119	157	93
25-34%	21	184	254	111	14
35%+	443	443	99	8	--
Not computed	27	14	--	--	--

Source: U.S. Census Bureau, 1980

HOUSING NEEDS

Under state housing element requirements, housing needs are defined in three categories: existing needs, projected needs over a five year period, and special needs. Previous sections of this chapter identified existing needs. In summary, they include the following:

o Overcrowding (1980)

151 overcrowded, owner-occupied units (2.9 percent)

236 overcrowded, renter-occupied units (7.0 percent)

o Substandard Units (1985)

About 128 units needing major rehabilitation (1.0 percent)

o Overpayment (1980)

495 lower-income homeowner housing paying more than 25 percent for housing (11.0 percent)

1,292 lower-income renter housing paying more than 25 percent for housing (39.2 percent)

Projected housing needs are the total additional housing units required to adequately house a jurisdiction's projected population in five years in units that are affordable, in standard condition, and not overcrowded. Projected housing needs, therefore, include the needs of the existing population as well as the needs of additional households expected to reside in the jurisdiction five years hence.

Special housing needs focus on the needs of subgroups within the population with special housing requirements, such as the elderly, the handicapped, large families, farmworkers, households headed by single females, and families and persons in need of emergency shelter.

Manteca's Share of Projected Regional Needs

To assist local governments in San Joaquin County in making projections of future housing needs, the San Joaquin County Council of Governments prepared a housing allocation plan covering the period from 1986 to 1990. The purpose of the plan is to examine housing needs across jurisdictional boundaries and allocate to each local government responsibility for planning to meet those needs.

San Joaquin County COG's Market Rate Fair Share Housing Allocation developed housing needs based on seven different factors affecting housing need. These factors are: market demand for housing, employment opportunities, availability of housing sites and facilities, commuting patterns, type and tenure of housing need, farmworker housing need, and the need to avoid impacting areas with lower income housing. Allocations are then broken down by income categories.

According to the San Joaquin County Council of Governments, Manteca will need to build 2,268 new housing units between July 1, 1986 and July 1, 1990 (see Table II-17). This includes units for new households expected to reside in Manteca (with a 3 percent vacancy factor added) plus 40 replacement units.

TABLE II-17

TOTAL HOUSING NEEDS
1986-1990
Manteca

	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>Total</u>
Very Low (27.9%)	120	145	132	142	539
Other Low (14.0%)	70	85	77	83	315
Moderate (27.1%)	133	163	147	159	602
Above Moderate (36.3%)	<u>178</u>	<u>219</u>	<u>197</u>	<u>213</u>	807
Total Units Needed	501	612	553	597	2,263

Source: San Joaquin County Market Rate Fair Share Housing Allocation: 1986-1990, San Joaquin County Council of Governments, adopted May 31, 1983

According to a December 22, 1987 letter from Nancy Javor of the California Department of Housing and Community Development, "the Department of Finance household projections for the San Joaquin region for 1992 are approximately the same as the 1990 regional household estimates. The City may wish to consider the 1986-1992 new construction need to be the same as the 1986-1990 need. All pertinent tables, descriptions, and text should include this 1992 date." Using the 2,263 unit need figure for the 1986-1992 period, and adding 20 units (10 each year for FY 90-91 and 91-92) for replacement, Manteca's revised 1986-1992 housing need figure would be 2,283. This would amount to approximately 381 new units per year for the six-year period.

Special Needs

Beyond the general housing needs documented in previous sections of this chapter, state law requires that the housing element include an assessment of the housing needs of special groups within the community, including those of the disabled, the elderly, farmworkers, large families, families with female heads of households, and families and persons in need of emergency shelter.

Disabled Persons

The term "disabled" refers to a disability (physical, mental, or sensory) which prevents or precludes a person from doing work either in or outside of the home. The number of disabled persons in a community has important implications for providing certain social services, in the removal of barriers to facilities, and in developing housing which has specialized access for disabled residents.

According to the 1980 Census, Manteca has a slightly larger proportion of persons between the ages of 16-64 with a work disability (10.1 percent) than San Joaquin County (9.7 percent). The city also had a larger proportion of residents with a work disability remaining in the labor force than the county (39.4 percent compared with 32.7 percent).

TABLE II-18
WORK DISABILITY
Manteca and San Joaquin County
1980

	<u>Manteca</u>	<u>San Joaquin County</u>
With Work Disability	1,568	21,017
In Labor Force	617 (39.4%)	6,864 (32.7%)
Not In Labor Force		
Prevented from working	767 (48.9%)	12,042 (57.3%)
Not Prevented	184 (11.7%)	2,111 (10.0%)
No Work Disability	13,905	195,415

Source: U.S. Bureau of the Census

Elderly

In 1980 the city's 8,592 households included 1,431 households (16.7 percent) with at least one resident 65 years or older; 533 of these households were single-person households.

Elderly residents are faced with the problem of limited availability of rental units, especially in the studio/one bedroom range. The fact that many senior citizens are on fixed incomes further aggravates this problem.

Farmworkers

Because specific data on the number of farmworkers in a community is not regularly collected, it is difficult to assess the precise needs of this group. According to the 1980 Census, approximately three percent or 294 Manteca residents, were employed in farming. The majority, however, are not seasonal. Much of the need for farmworker housing is satisfied by public migrant housing projects in outlying county areas and low cost apartments and hotels in the City of Stockton.

Large Families

While published 1980 Census data provides little information on family size or household size, it does summarize the number of persons per housing unit by size of unit. In 1980 only 13.4 percent of Manteca's population lived in households with five or more persons.

There is no simple means from the data to determine how well large families are matched with large units.

Female Heads of Households

The 1980 Census reported that 718 households with children under 18 years of age were headed by single females. Many families headed by single females have lower incomes and, therefore, have difficulty finding affordable housing.

The Homeless and Other Persons with Emergency Shelter Needs

The housing needs of homeless persons are more difficult to measure and assess than those of any other population subgroup. Since these individuals have no permanent addresses, they are not likely to be counted in the census, and, since they are unlikely to have stable employment, the market provides few housing opportunities.

The central San Joaquin Valley has historically attracted a particularly large number of homeless principally because it constitutes the main transportation corridor for travelers moving between Southern California's urban centers and the San Francisco Bay Area. The Manteca-Stockton area lies at the crossroads of the main east-west and north-south freeways in the Valley and, as a result, is an attractive stopping point for those in need of temporary work or shelter.

Primarily because of the city's proximity to Stockton, which has a significant concentration of homeless residents, homelessness has not historically been a serious concern in Manteca. Most of the homeless in the area go to Stockton because of the availability of sources of assistance, both public and private, and because of the abundance of low-cost housing, particularly in downtown residential hotels. Manteca has few opportunities for such assistance and housing, and therefore, has relatively few residents without homes, particularly compared with Stockton. Some service providers have, however, noted an increase in the number of homeless persons seeking assistance in Manteca, partly because services and facilities in Stockton are overburdened.

The homeless can generally be classified according to two basic categories: individuals and families. The two categories differ significantly with respect to the sort of services they require.

The individual homeless are often transient single males who are looking for short-term accommodations. This is the group most often identified with homelessness. There is no accurate means of assessing the precise number of such individuals who pass through Manteca, although, as stated earlier, the number appears to be increasing as facilities in Stockton become overburdened.

The needs of homeless families present different problems. Such families typically are looking for larger, more permanent housing opportunities than homeless individuals. In response to the needs of families, the State of California initiated a program in 1988 which provides grants to social service agencies to help families with housing needs find homes. In San Joaquin County, the County Human Services Agency administers a program which provides up to two months rent to families which are either receiving AFDC (Aid for Families with Dependent Children) or are apparently eligible for it. The County will provide the equivalent of \$30 a day for families of four or fewer, with an additional \$7.50 per day for each family member over four. The total may not, however, exceed \$60 a day. After two months, the County will provide eligible families with necessary deposits and last month's rent for permanent rental housing. Because this program was established so recently, the County has no statistics with respect to how much it has been used in Manteca.

In addition to publicly-subsidized programs, some private organizations provide services to the homeless. In Manteca, the primary provider of such services is Love Thy Neighbor, a private corporation which, while it has no housing facilities, makes arrangements and provides financial assistance for homeless people in search of places to stay. It also provides a wide range of associated services for both individuals and families in need, including a food kitchen which serves food to between 20 and 30 families (not necessarily all homeless) per day. The director of Love Thy Neighbor estimates that about 25,000 people (many of whom are homeless) receive assistance from them annually. Love Thy Neighbor receives most of its referrals from the Manteca Police Department and from the Manteca Ministerial Association.

Those in need of emergency shelter differ somewhat from the homeless, although there is some overlap. They include battered women and children, persons displaced from their homes by disasters such as fires, tenants who have been evicted from rental housing, and runaways. Love Thy Neighbor, which attempts to find accommodations and provisions, is also the primary service provider in Manteca for people with emergency shelter needs, although their placement efforts are hindered because there is no shelter facility in the city. Emergency shelter needs are currently available primarily in local hotels.

Although the needs of both the homeless and those in need of emergency shelter are not as significant in Manteca as they are in Stockton, there appears to be an increasing demand in Manteca for services for these groups.

AVAILABILITY OF LAND AND SERVICES FOR RESIDENTIAL DEVELOPMENT

Residential Zoning

Manteca's Zoning Ordinance includes five basic residential zoning districts (see Table II-20). The Residential Estate District (R-E) is the lowest density zone and provides for one single family dwelling and agricultural uses on lots with a minimum of 20,000 square feet. The Single Family Residence District provides for single family dwellings with three different minimum lot sizes specified: R-1-6 (6,000 square feet); R-1-8 (8,000 square feet), and R-1-10 (10,000 square feet). The Single Family Attached Patio Homes District (R-2) is designed to protect existing conventional single family neighborhoods, while encouraging development of affordable, innovative single family attached patio homes on lots as small as 3,750 square feet. The Garden Apartment District (R-3) provides for single family and multi-family dwellings with 2,925 square feet of lot area required for each unit. The Multi-Family-Institution District (R-4) allows for the full range of housing types plus selected institutional uses with 1,450 square feet of lot area required for each unit.

Residential development is also allowed in two other special zones. The Planned Unit Development District (P-U-D) allows mixed use residential developments of unusual density or design characteristics that would not normally be permitted in other zoning districts. All residential developments in P-U-D zone are subject to approval as part of a development plan.

The Neighborhood Enhancement District (N-E), which is like the P-U-D District for older residential neighborhoods, allows residential development subject to an approved Neighborhood Enhancement Plan. Alternatively, the N-E District can be used as a combining district or overlay district with residential development subject to approved Compatibility Review Criteria.

Mobilehome parks, allowable in the R-4 district, must be at least ten acres and may not exceed seven units per gross acre.

Manufactured housing, allowable in all residential zones except R-2, must be attached to a permanent foundation, have exterior wall covering of stucco, masonry, wood, shake, or brick, have a roof of shakes or conventional materials with a pitch of not less than 2:12, and have porches, patios, roof eaves, and overhangs to insure compatibility with neighboring conventional residences.

The zoning ordinance also allows for secondary residential units, attached or detached, on corner lots in single family or multi-family districts. It does not, however, presently include a density bonus provision.

Vacant Land

In October 1985, the City of Manteca Planning Department conducted a comprehensive survey of existing land use within the city limits. Based on this information, the Consultant Team calculated the amount of land within each zoning district and calculated the amount of vacant land and under-utilized land within each district. Table II-19 summarizes vacant and under-utilized land within the city's residential zones and estimates their dwelling unit potential. The table shows that residentially-zoned vacant and under-utilized land within the city could accommodate approximately 4,700 additional units.

TABLE II-19

VACANT RESIDENTIALLY ZONED
LAND AND DEVELOPMENT POTENTIAL
City of Manteca
August 1985

	<u>Vacant Acres*</u>	<u>Unit Potential</u>
R-E	35.6	81
R-1-6	232.0	1,533
R-1-8	36.2	189
R-1-10	14.0	60
R-2	--	--
R-3	17.4	251
R-4	86.7	2,585
P-U-D	78.0	Per approved plan
N-E	<u>--</u>	<u>--</u>
Total	499.9	4,699

*Includes vacant and underutilized

Source: Consultant Team Estimate based on City of Manteca Planning
Department Survey, October 1985

Publicly Owned Surplus Land

There is presently no publicly owned land in Manteca that has been declared surplus.

Services for Residential Development

In addition to the availability of land, the continued development of housing in Manteca is dependent on the availability of those public facilities and services necessary to support residential growth, including water, sewer, drainage, and schools. Chapter VI, Public Facilities and Services, describes current system facilities and capacities. The findings of that chapter are summarized below.

Water Service

The City of Manteca provides water service within the city limits. Water is currently derived from 15 wells. While the 1985 Master Water Plan is based on the use of groundwater as the City's sole source, the development of new wells is limited by the availability of water in the aquifer supplying the city. Accordingly, the City has begun negotiations with the U.S. Bureau of Reclamation for the purchase of water from New Melones Dam. If such negotiations are successful, a forty-year supply of additional water may be secured.

The City's existing water distribution system needs a number of improvements, as recommended in the Master Water Plan.

In the short-term, water supply and distribution should not be a constraint on housing. In the long-term, development of new sources of supply, ongoing improvements to the existing distribution system, and construction of water lines to new development areas should eliminate any water availability problems.

Sewage Collection and Treatment

In 1985 a building moratorium was imposed when sewage flows began to exceed treatment plant capacity. With improvements to the treatment plant that commenced in 1985, the City was allowed to temporarily lift its building moratorium and to issue a limited number of commercial and residential permits.

With the 1987 completion of a treatment plant expansion to provide capacity for about three years of growth, the City began allocating its remaining capacity among various land uses. 60 percent of this capacity is earmarked for residential development. During FY 87-88, 1,278 residential units are authorized by the allocation formula. For FY 88-89 and FY 89-90, a total of 497 residential units will be authorized.

The City is currently developing plans for its Phase II sewer treatment plant capacity expansion. This expansion will add approximately 1,279,500 gallons per day of additional capacity, allowing for development late into the 1990s.

With the completion of the Phase II capacity expansion, the City will need to consider construction of a second plant adjacent to the existing plant or an entirely new plant in another location.

Storm Drainage

Manteca's storm drainage system also has a number of existing deficiencies. The 1987 Storm Drainage Master Plan outlines a program for correcting these deficiencies as well as for providing drainage facilities in newly-developing areas.

Schools

The core facilities of Manteca's public schools have reached enrollment capacity, and the Manteca Unified School District has resorted to placing relocatable buildings on existing school sites in order to accommodate enrollment increases. The District has either purchased or is in the process of purchasing several new sites, but has not yet acquired the funding to construct the new permanent facilities which will be necessary to accommodate increases in enrollment resulting from continued residential growth.

GOVERNMENTAL CONSTRAINTS

While local governments have little influence on such market factors as interest rates, their policies and regulations may constrain the free operation of the housing market. For the most part, local regulations play a legitimate role in protecting the public's health, safety, and welfare. In some cases, however, local regulations may unnecessarily restrict the operation of the housing market. Examination of the local regulatory structure can highlight those areas of "excessive" regulations where steps can be taken to remove or minimize obstacles to residential development.

Local Land Use Regulations

All land use, including residential development, in Manteca is regulated by the Manteca General Plan and the City's Zoning and Subdivision Ordinances, as described in a previous section of this chapter.

As discussed above, the City is presently issuing only a limited number of building permits due to sewer treatment plant deficiencies. The City has established a committee and procedures for allocating residential sewer connections pending completion of sewer plant improvements.

Growth Management Program

Prompted largely by sewer plant limitations, but also by a concern for the impacts of growth generally, the Manteca City Council in 1986 began exploring development of a growth management system. After a year and a half of consultant work and public discussion, the City has prepared a growth management program that sets a maximum average annual residential growth rate of 3.9 percent and provides for periodic evaluation and scoring of residential, commercial, and industrial projects to establish eligibility for project approval. The growth management program will be adopted concurrently with the revised general plan in Spring 1988.

While the Growth Management Program sets an average annual limit of 3.9 percent for residential growth, over the period 1986-1992 it will allow for the development of 3,135 new units. By comparison, Manteca's projected housing need figure for the same period (as determined by the San Joaquin County Council of Governments, modified as noted above) is 2,286 new units.

In addition, the City's Growth Management Program awards points in its evaluation and scoring system to residential projects that include housing for low and moderate income households.

Table II-20 shows Manteca's projected housing need and the City's adopted quantified objectives for new housing construction.

TABLE II-20

QUANTIFIED OBJECTIVES
July 1, 1986 through July 1, 1992

	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>	<u>Total</u>
SJCCOG Fair Share ¹	381	381	381	381	381	381	2,286
Quantified Objectives	167 ²	1,279 ³	249 ^{3,4}	248 ^{3,4}	585 ⁵	608 ⁵	3,135 ⁶

¹Annual average based on a total projected need of 2,283 new dwelling units for the period 1986 through 1992.

²Actual number of residential building permits issued.

³Based on available sewer allocation through 1990.

⁴The combined allocation for FY 88/89 and 89/90 is 497 dwelling units. The allocation for each year may, however, be more or less than is indicated.

⁵Based on a 3.9 percent annual growth rate set by the Growth Management Program using a projected 15,000 dwelling units in 1990.

⁶Approximately 30 percent of these units are program units expected to be produced with financial or regulatory assistance (e.g., density bonuses) from a governmental agency, based on housing element programs.

Source: Manteca General Plan Policy Document, adopted May 1988.

Building and Housing Codes

Building and housing codes establish minimum standards and specifications for structural soundness, safety, and occupancy. The State Housing Law requires cities and counties to adopt minimum housing standards based on model industry codes. In addition to meeting the requirements of State Housing Law, local governments enforce other state requirements, including those for fire safety, noise insulation, soils reports, earthquake protection, energy conservation, and access for the physically disabled.

As of April 1985, the City was implementing all the most recent editions of the uniform codes and other state regulations as required by law, including the following editions of the uniform codes: 1982 Uniform Building Code; 1982 Uniform Plumbing Code; 1982 Uniform Fire Code; and 1984 National Electrical Code. In adopting the uniform codes the City has decreased the standards in a few areas, such as electrical wiring in garages, in the interest of health and safety. The Building Section of the Manteca Public Works Department has estimated that these more stringent standards add less than \$200 to the cost of a typical housing unit. The City is also implementing revised energy conservation requirements for new residential structures (effective July 1983) and revised accessibility regulations for the disabled in multi-family structures of five or more units (effective March 1985).

Increased costs for energy conservation may increase initial sales prices and rents, but should reduce the utilities component of housing costs over the long term. Accessibility regulations may also increase initial sales prices and rents, but they also address the housing needs of elderly and disabled persons.

Local Permit Processing Fees

State law requires that permit processing fees charged by local governments must not exceed the estimated actual cost of processing the permits. Table II-21 lists the fees currently (February 1986) charged by the City for processing various land use permits.

TABLE II-21
PLANNING FEE SCHEDULE
City of Manteca
February 1986

General Fees

Variance	\$125
Conditional Use Permit:	
Minor	70
Major	150
Zone Change	300
Prezone	300
General Plan Amendment	275
Planned Unit Development	300
Tentative Maps:	
Subdivisions	200 + 2.50/lot
Parcel (four lots or less)	75 + 1.50/lot

Environmental Evaluation Fees

Environmental Application Review	\$ 20
Environmental Assessment:	
Negative Declaration	45
Expanded Negative Declaration (Mitigation Statement)	75
Environmental Impact Report:	
Processing and Review of Draft	400
Preparation (Prepared by applicant)	---

Design Review Fees

Site Plan and Architectural Review:	
Mixed Use Residential Project (Not exceeding 6,000 s.f.)	\$ 50
Mixed Use Residential Projects (Exceeding 6,000 s.f.)	75
Commercial/Industrial Projects	100
Apartments/Motels	75
P.U.D. Condominium Projects	145

TABLE II-21
(Continued)

Special Fees

P.U.D. Modifications	\$180
Condominium Conversion Project	265
Home Occupation Permit	35
Sign Permit	40
Appeals of Planning Commission Decision	40
Administrative Appeals to Planning Commission	50
Lot Line Adjustments and Mergers	50
Easement or Right-of-Way Abandonments, etc.	60
Reversion to Acreage	60
Request for Time Extension to File Final Subdivision Map	25

Source: City of Manteca, February 1986

Permit Processing

The timeliness with which the City processes the various permits and applications necessary for residential development can affect the overall cost of housing.

The minimum time for processing permits is established by state requirements for environmental review and public notice and by the meeting schedules of the Planning Commission and City Council.

The maximum time for processing residential development permits is set by state law (California Government Code Sections 65920 et seq.). The statutory time limit for completion of environmental review and approval or denial of a permit application starts when an application is accepted by the lead agency as complete. The lead agency then has one year in which to approve or disapprove a project for which an EIR is required and six months for projects for which no EIR is required.

Table II-22 summarizes the average time required for the City of Manteca to process development permits. Given the requirements for environmental review, public notice, and the meeting schedules of the Planning Commission and City Council, there is little room for processing permits any faster than the City already does.

TABLE II-22

AVERAGE PERMIT PROCESSING TIME
City of Manteca
1986

	<u>Average Time Needed*</u>
General Plan Amendment	4 months
Rezoning	4 months
Variance	7 weeks
Use Permit	5-7 weeks
Minor Subdivision (Tentative Map)	7-9 weeks
Major Subdivision (Tentative Map)	3 months
Minor Subdivision (Final Map)	4-6 weeks
Major Subdivision (Final Map)	5 weeks
Lot Line Adjustment	3 weeks
Design Review/Site Plan Review	2 weeks (if staff review) 3 weeks (if Planning Commission review)
Building Permit	3-11 weeks

*Assumes a negative declaration or categorical exemption. Additional time would be necessary if an environmental impact report is required.

Source: City of Manteca, September 1987

Residential Development Fees

Since the passage of Proposition 13 in 1978, local governments have come to rely increasingly on impact and connection fees to finance local infrastructure. The City of Manteca charges several fees on residential developments at the building permit stages, as shown in Table II-23.

On- and Off-Site Development Standards

In some jurisdictions, overly restrictive or demanding development standards may inhibit the development or retention of affordable housing. Such standards may include local requirements for streets, sidewalks, gutters, yards, setbacks, lot coverage, and fencing.

The City of Manteca imposes no development standards which constrain the development of affordable housing.

TABLE II-23
DEVELOPMENT FEES
City of Manteca
June 1986

<u>Type</u>		<u>Per Unit</u>
Park-Acquisition	234.00	First Bedroom
	158.00	Each Addition Bedroom
	548.00	Maximum
Sewer Connection	2,222.00	Per Dwelling Unit
Water Meter		
3/4" x 5/8"	2,222.00	
1"	2,909.00	
1-1/2"	4,015.00	
2"	5,519.00	
3"	9,377.00	
4"	13,348.00	
6"	36,250.00	
8"	49,749.00	
Storm Drain Fee	2,360.00	Per acre
Development Fees:		
Government Facilities	350.00	
Traffic Signal	200.00	
Major Equipment Purchase	350.00	
Highway Interchange	500.00	

Source: City of Manteca, June 1986

NON-GOVERNMENTAL CONSTRAINTS

Non-governmental constraints are those factors limiting the availability of affordable housing over which local government has little or no control. State law requires that the housing element contain a general assessment of these constraints as a basis for possible actions by the local government to offset the effects of these constraints. The two principal types of non-governmental constraints are new housing cost components and the availability and cost of permanent financing.

Table II-24 profiles development costs for a new three bedroom, 1,400 square foot home on a 6,500 square foot lot in Manteca.

TABLE II-24

HOUSING COST COMPONENTS, 1985
Three Bedroom, Two Bath Home*
Manteca

Land (Improved Lot)	\$25,000
Development and Connection Charges	\$ 3,350
Building Permit Fees	\$ 500
Construction Costs	\$54,045
Construction Financing, Developer Profit and Marketing	<u>\$16,480</u>
Total	\$99,375

The discussion of development costs, and later, financing costs, is limited to the typical single family home, because, despite changes in demographics and consumer preferences in recent years, single family home ownership is still a major objective of most families in California. Consequently, the cost of a new single family home serves as the benchmark in decisions by consumers about what they are willing to pay for different kinds of housing.

Interest rates for permanent financing have been the most erratic and problematic component for total housing costs for homeowners and would-be homeowners in recent years. Interest rates have fluctuated over the last ten years within a range from 8 percent to over 18 percent. The interest rate on the conventional, 30-year, fixed rate mortgage presently runs about 10 percent with loan origination fees of around 2 1/2 percent plus \$250.

Because so many families have been unable to qualify for home loans at the higher interest rates, sellers, buyers, and financial institutions have spawned a wide variety of new financing techniques, including mortgages with interest rates. Presently, the rates for adjustable interest mortgages running 9 to 11 percent with a three to six percent cap on rate adjustments and a loan fee of one to 2 1/2 percent plus \$250.

Table II-25 shows what monthly payments would be at different interest rates. Taxes, insurance, and utilities would amount to an additional \$200 to \$300 per month.

TABLE II-25
MONTHLY MORTGAGE PAYMENTS

Interest Rate	Original Loan Amount					
	<u>\$50,000</u>	<u>\$60,000</u>	<u>\$70,000</u>	<u>\$80,000</u>	<u>\$90,000</u>	<u>\$100,000</u>
9.0%	402	483	563	644	724	805
9.5%	420	505	589	673	757	841
10.0%	439	527	614	702	790	878
10.5%	457	549	640	732	823	915
11.0%	476	571	667	762	857	952
11.5%	495	594	693	792	891	990
12.0%	514	617	720	823	926	1029

Note: Chart is based on a 30-year, fixed-rate mortgage and does not include real estate taxes and home insurance. To figure these costs, add about 2 percent of the sales price in 12 installments to the monthly payments.

Source: 1986 Realty Bluebook

Table II-26 relates loan interest rates to home loan affordability at various income levels. The figures in the table are based on principal and interest equaling 25 percent of the gross income and do not include taxes and insurance, which could add approximately 15 percent to the monthly payments. Most lenders, however, are qualifying buyers somewhere between 28 and 36 percent of total income, so Table II-26 provides only a thumbnail estimate of loan affordability.

TABLE II-26
INCOME/LOAN AMOUNT AFFORDABILITY

Interest Rate	Annual Income						
	<u>\$20,000</u>	<u>\$25,000</u>	<u>\$30,000</u>	<u>\$35,000</u>	<u>\$40,000</u>	<u>\$45,000</u>	<u>\$50,000</u>
9%	51,560	63,550	77,500	89,600	103,200	116,000	128,000
10%	47,480	59,349	71,219	83,089	94,959	106,829	118,699
11%	43,753	54,691	65,629	76,567	87,505	98,443	109,382
12%	40,503	50,635	60,761	70,888	81,015	91,142	101,269
13%	37,667	47,083	56,500	65,916	75,333	84,750	94,166
14%	35,166	43,957	52,748	61,450	70,331	79,122	87,914

Source: National Association of Home Builders

The availability of financing is another important consideration, particularly for the builder. The cost of financing is irrelevant if lenders are unwilling to lend money to developers in a particular market. In Manteca, primarily because of the attractiveness of the market, financing is readily available.

RESIDENTIAL ENERGY CONSERVATION

Residential energy conservation measures can take two forms: those applied to the construction of new housing and those added to existing housing to increase energy efficiency (retrofitting).

The State requires local governments to implement energy conservation standards for all new residential development. Under these requirements, every new residential building constructed must meet rigorous building standards for heat gain and loss. In mandating these requirements, the State has largely preempted the authority of local governments to regulate building construction with respect to energy conservation.

In the past, Pacific Gas and Electric (PG&E) has sponsored various energy programs, including the Zero Interest Program (ZIP). PG&E has, however, discontinued most such programs, except for the free Direct Weatherization Program for low-income customers. The Valley Resource Center in Stockton administers the program in Manteca. PG&E also continues to provide free energy audits to its customers.

HOUSING PROGRAMS IN MANTECA

Because Manteca's housing has always been relatively affordable and is in good condition, public agencies have not found it necessary to focus housing program efforts on Manteca. The only public agency program providing housing assistance in Manteca is the Stockton Housing Authority's Section 8 Existing Program. The housing authority administers approximately 2,300 Section 8 rent certificates countywide, with only 20 or so currently being used in Manteca.

FINDINGS

- o Manteca's housing stock is in relatively good condition and in the short and mid-term should not require major rehabilitation efforts. Manteca will, however, likely annex areas over the next twenty years that do contain substandard housing and may need to undertake rehabilitation programs.
- o The continued production of affordable housing will be the primary issue for Manteca. Increasing land and infrastructure costs will likely contribute most to escalating housing costs and should.
- o Citizens and local officials have expressed concern about maintaining a balance between single family and multi-family housing. Despite a large increase in multi-family housing in recent years, single family housing still makes up nearly 74 percent of Manteca's housing stock.
- o Manteca has yet to establish a program for residential density bonuses as required by the state law.
- o Average household size in Manteca is larger than is typical in San Joaquin County and the state, and will likely continue to be so for the foreseeable future.
- o Although the needs of both the homeless and those in need of emergency shelter are not as significant in Manteca as they are in Stockton, there appears to be an increasing demand in Manteca for services for these groups.

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PERSONS CONTACTED

- o Adams, Phil, Leasing Manager, San Joaquin County Housing Authority
- o Boardman, Colleen, Program Assistant, San Joaquin County Human Services Agency
- o Bynum, Frances, Director, Love Thy Neighbor, Inc.
- o Valadez, Linda, General Relief Unit Chief, San Joaquin County Human Services Agency

GLOSSARY

Contract Rent - The monthly rent agreed to, or contracted for, regardless of any furnishings, utilities, or services that may be included.

Family - Two or more persons, including the householder, who are related by birth, marriage, or adoption, and who live together as one household.

Gross Rent - Contract rent plus the estimated average monthly cost of utilities (water, electricity, gas) and fuels (oil, coal, kerosene, wood, etc.) to the extent that these are paid for by the renter (or paid for by a relative, welfare agency, or friend) in addition to the rent.

Household - The person or persons occupying a housing unit.

Housing Unit - A house, apartment, mobilehome or trailer, group of rooms, or single room occupied as a separate living quarter or, if vacant, intended for occupancy as a separate living quarter. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall.

Income Levels - Income categories are defined with respect to the area or county median income and are adjusted for household size, as follows:

Very Low Income - Less than 50 percent of the area or county median income.

Other Lower Income - Between 51 percent and 80 percent of the county median income.

Lower Income - Less than or equal to 80 percent of the county median income (i.e., combination of very low income and other lower income).

Moderate Income - Between 81 percent and 120 percent of the county median income.

Above Moderate Income - Above 120 percent of the county median income.

Mean - The average of a range of numbers.

Median - The mid-point in a range of numbers.

Overcrowding - Households or occupied housing units with 1.01 or more persons per room.

Year-round Housing Units - All occupied units plus vacant units intended for year-round use, but excluding vacant units held for seasonal use or migratory labor.

APPENDIX II-A

AVAILABLE HOUSING PROGRAMS

This appendix summarizes those federal, state, and local programs available in 1987 that the City of Manteca might pursue to implement City housing policies. The program summaries are based on program descriptions contained in HCD's March 1987 Directory of Housing Programs, CHFA's September 1986 Annual Report, HUD's 1985-86 summary of programs, and FmHA's 1984 Brief History of FmHA. Eligible sponsor/applicants for each federal and state program are also indicated as follows:

1. city or county;
2. housing authority;
3. special district;
4. non-profit organization;
5. for-profit organization or developer; and
6. individual.

Because of the ever-changing nature of legislation and government programs pertaining to housing, the status of the programs listed here may have changed. The following summaries should therefore be used only as a guide to possibly available assistance programs. For updated information on program status, the agencies listed should be contacted.

FEDERAL PROGRAMS

Department of Housing and Urban Development/Federal Housing Administration

The U.S. Department of Housing and Urban Development (HUD) and its constituent agency, the Federal Housing Administration (FHA), administer a variety of mortgage insurance, rent subsidy, and loan and grant programs aimed at helping communities provide affordable housing for low and moderate-income citizens.

Depending on the program, eligible applicants include both nonprofit and profit-motivated sponsors and builders, public agencies, the elderly, the disabled, and individuals with incomes below the area median, as well as those of moderate income. Programs range from conventional single-family and mobilehomes to multi-unit and cooperative housing.

The Department of Housing and Urban Development administers its programs through ten regional offices, and within those regions there are 73 area offices.

For information on HUD-sponsored programs, contact the local field office. In the Manteca area contact:

777 12th Street
Sacramento, CA 95809-1978
(916) 551-1390

Home Improvement Loan Insurance (Title I, Section 2)

HUD insures loans to finance major and minor improvements, alterations, and repairs of individual homes. The loans may be up to \$17,500 and may extend up to 15 years and 32 days. Loans on apartment buildings may be as high as \$8,750 per unit, but the total for the building may not exceed \$43,750, and the term may not exceed 15 years. Private lending institutions process these loans.

Eligibility: 6

Manufactured Homes (Title I, Section 1)

HUD provides insurance on loans by private lenders to finance the purchase of manufactured homes, thereby providing alternative lower-cost housing. The maximum loan is \$45,500, whether single or multi-section home, \$54,000 for a manufactured home and a suitable developed lot, and \$13,500 for developed lot only. The maximum loan term is 20 years for a single unit and lot, 25 years for a double unit and lot, and 15 years for a lot only.

Eligibility: 6

Manufactured (Mobile) Home Insurance (Title I, Section 2)

This program insures loans to purchase manufactured home units by buyers intending to use them as their principal place of residence. (Note the previous Title I Section I program insures loans on manufactured homes and lots.) The maximum loan is \$40,500, whether single or multiple modules. The borrower must assure that the unit will be placed on a site which complies with FHA standards and local zoning requirements.

HUD insures private lenders against losses of up to 90 percent of any single loan. Insurance coverage is limited to 10 percent of the total amount of any of the loans insured by the lender. The loan term may extend for up to 20 years and 32 days.

Eligibility: 6

Lower Income Rental Assistance (Section 8)

This program aids low- and very-low income families in obtaining decent, safe, and sanitary housing in private accommodations. HUD makes up the difference between what these families can afford and the fair market rent for an adequate housing unit. Eligible tenants must pay the highest of either adjusted income, 10 percent of gross income, or the portion of welfare assistance designated to meet housing costs. This rental assistance may be used in existing housing, in new construction, and moderately or substantially rehabilitated units.

Eligibility: 2,4,5,6

Moderate Rehabilitation Program (Section 8)

This program encourages the rehabilitation of rental property for occupancy by Section 8 recipients. The program does not provide financing for rehabilitation, instead, it guarantees Section 8 payments to the owner of

rehabilitated developments whenever eligible tenants reside in the project. Prior to undertaking rehabilitation work, the owner and the local Housing Authority enter into a Housing Assistance Payments contract. The Housing Authority will provide technical assistance in obtaining financing and for the rehabilitation. Once the work is completed, the Housing Assistance Payments contract is executed and operates for a 15-year period.

Moderate rehabilitation is defined as rehabilitation involving only a limited amount of work on a dwelling unit, which can be accomplished with the tenants in place. Temporary relocation or permanent displacement should not be required except in limited circumstances.

Eligibility: 2,4,5,6

Rental Housing Rehabilitation (Section 17)

This program is intended to increase the stock of affordable rental housing for lower-income renters (80 percent of the area median) by providing grants to state and local governments to support the rehabilitation of existing rental units and by providing rental housing assistance to lower-income families to enable them to afford the rents of units in assisted projects. Grants are awarded on a formula basis to cities with populations of 50,000 or more, urban counties, and states, for rehabilitation of privately owned, primarily residential, property. Rehabilitation subsidy for each project is limited to an average of \$5,000 per unit, adjusted for high cost areas, and 50 percent of the project's total eligible rehabilitation costs. No funds may be used for program administration. Vouchers and Section 8 certificates are provided to permit eligible tenants to remain in rehabilitated units and/or eligible new tenants to move into the units.

HUD distributes the funds based upon a formula which considers three factors: (1) number of rental units where the income of tenant households is at or below the poverty level; (2) number of rental units built before 1940, where the income of the household is at or below the poverty level; and (3) number of rental units with at least one of four housing problems--overcrowding, high rent costs, incomplete kitchen facilities, or incomplete plumbing. The third factor is weighted double in the formula.

Eligibility: 1

Housing Development Grants (HODAG)

This grant is intended to increase the availability of rental housing for lower income people in areas where there is a severe shortage of such housing. Development grants are used to help private developers construct or substantially rehabilitate rental housing in those areas.

All projects assisted by development grants must reserve at least 20 percent of the units for families with incomes at or below 80 percent of the median income of the area. Owners of projects must agree to keep the assisted units available for occupancy by lower income tenants for 20 years and must agree not to convert the units to condominiums during the 20-year period.

Development grants cannot exceed 50 percent of the total cost, less acquisition, rehabilitating, or developing the building. Once selected, the projects must be under construction within 24 months of HUD approval.

When construction or rehabilitation of a project has been completed and the project reaches a certain level of occupancy, it will be closed out by HUD. At that time, the city, urban county, or state will become responsible for monitoring project operations and approving rent increases.

Multi-family Rental Housing (Section 207)

HUD insures mortgage loans made by private lenders to finance the construction or rehabilitation of multi-family rental housing by private or public developers. Projects must contain at least five units and should be able to accommodate families at reasonable rents. Maximum mortgage limits range from \$9,500 to \$36,000, depending on unit size. Section 207 also insures lenders against loss on mortgages used to finance the construction or rehabilitation of mobilehome parks with five or more space, at a maximum of \$9,000 per space.

Eligibility: 2,4,5

Cooperative Housing (Section 213)

HUD insures mortgages made by private lenders on cooperative housing projects of five or more units to be occupied by members of nonprofit cooperative housing corporations. These loans may finance new construction, rehabilitation, acquisition, improvement or repair of a project already owned and resale of memberships: construction of projects composed of individual family dwellings to be bought by individual members with separate insured mortgages; and construction or rehabilitation of projects that the owners intend to sell to nonprofit cooperatives.

Eligibility: 4

Homeownership Assistance for Low- and Moderate-Income Families (Section 221 (d)(2))

HUD provides mortgage insurance to increase homeownership opportunities for low- and moderate-income families, especially those displaced by urban renewal. HUD insures lenders against loss on mortgage loans to finance the purchase, construction, or rehabilitation of low-cost, one- to four-family housing. Maximum insurable loans for an owner-occupant are \$31,000 for a single family home. For a larger family (5 or more persons), the limits are \$36,000 or up to \$42,000 in high costs areas. Higher mortgage rates apply to two-to four-family housing.

Eligibility: 6

Multi-family Rental Housing for Low- and Moderate-Income Families (Section 221 (d) (3 & 4))

HUD offers mortgage insurance to finance rental or cooperative multi-family housing for moderate-income households. HUD insures mortgages made by private lenders to help finance construction or substantial rehabilitation of multi-family (5 or more units) rental or cooperative housing for moderate income or displaced families. Projects in both cases may consist of detached, semi-detached, row, walk-up, or elevator structures.

Eligibility: 1,2,4,5

Existing Multi-Family Rental Housing (Section 223 [f])

HUD insures mortgages to purchase or refinance existing multi-family projects originally financed with or without federal mortgage insurance. HUD may insure mortgages on existing multi-family projects under this program that do not require substantial rehabilitation. Projects must contain at least five units and must be at least three years old.

Eligibility: 4,5

Rental Housing for the Elderly (Section 231)

To assure a supply of rental housing suited to the needs of the elderly or disabled, HUD insures mortgages made by private lending institutions to build or rehabilitate multi-family projects consisting of eight or more units.

Eligibility: 1,2,4,5

Mortgage Insurance: Nursing Homes and Intermediate Care Facilities (Section 232)

HUD insures lenders against loss on mortgages used to finance construction or renovation of facilities to accommodate 20 or more patients requiring skilled nursing care and related medical services, or patients who, while not in need of nursing home care, are in need of minimum but continuous care provided by trained personnel. Nursing home and intermediate care services may be combined in the same facility covered by an insured mortgage or may be in separate facilities. Major equipment for operation may be included in the mortgage.

The maximum insured amount of the loan cannot exceed 90 percent of the estimated value of the physical improvements and major movable equipment. The maximum mortgage term is 40 years.

Section 437 of the Housing and Urban-Rural Recovery Act of 1983 allows insurance of board and care homes under Section 232. These facilities do not have medical services but have 24-hour staff for continuous protective oversight of residents. A board and care home can be either freestanding or part of a complex that could also include a nursing home, an intermediate care facility, or both.

Eligibility: 4,5

Mortgage Insurance: Experimental Housing (Section 233)

Two distinct housing assistance programs operate under Section 233. Their common goal is to encourage, by means of insured loans, the use of new or untried construction materials, designs or techniques for reducing housing costs, raising living standards, and improving neighborhood design. Provisions of other HUD programs can apply to those aspects of the project where nonexperimental features are utilized.

HUD/FHA insures mortgage loans that finance the construction or rehabilitation of homes meeting the requirements of other FHA-mortgage insurance programs except that the use of advanced technology or experimental neighborhood design is required. The average insured

mortgage is \$65,000. Eligible applicants are persons able to prove that the proposal is an acceptable risk for testing advanced housing design or experimental property standards.

The Section 233 program provides mortgage insurance to encourage innovative design features in multi-family housing. Title II provisions apply where nonexperimental features are utilized. The type of construction, mortgage limit, down payment, term, interest rate, and fees are governed by eligibility requirements of the applicable multifamily mortgage or improvement loan insurance program.

Eligibility: 4,5,6

Condominium Housing (Section 234)

HUD insures mortgages made by private lenders for the purchase of individual family units in multi-family housing projects. Sponsors may also obtain FHA-insured mortgages to finance the construction or rehabilitation of housing projects which they intend to sell as individual condominium units. Projects must contain at least 4 units and may be detached, semi-detached, row, walk-up, or elevator structures. Recent changes in legislation also permit insuring mortgages on individual units in existing condominiums.

Eligibility: 4,5,6

Mortgage Insurance: Special Credit Risks (Section 237)

The purpose of this program is to make home ownership possible for low-and moderate-income families who cannot meet requirements under Section 203, 220, 221, or 234. The monthly mortgage payment (principal, interest, insurance, and taxes) may not exceed 25 percent of the borrower's annual income. The maximum insurable mortgage is \$18,000 (\$21,000 in areas where cost levels so require).

Counseling assistance must be obtained by the applicant mortgagor from a HUD-approved counseling agency. The down payment required is determined by the requirements for the HUD program under which the application originates. Applications may be originated under most HUD home mortgage programs. The mortgage term may extend for 30 years, or for 35 to 40 years where the purchaser is unacceptable under a 30 year term.

Eligibility: 6

Supplemental Loan Insurance: Multi-family Rental Housing (Section 241)

This program supplements existing insured mortgages and does not require refinancing the existing mortgage. HUD insures lenders against loss on loans made either (1) to finance additions and improvements of multi-family housing projects, group practice facilities, hospitals, and nursing homes subject to HUD/FHA insured mortgages or mortgages held by HUD, or (2) to finance energy conservation improvements. A loan involving an insured nursing home or group practice facility may also be used to purchase equipment.

The supplemental loan for a project with a HUD-insured or HUD-held mortgage may not exceed 90 percent of the estimated value of the improvements, additions, or equipment. A loan for a project with a HUD-held mortgage may exceed the remaining term of the mortgage and extend for 40 years.

Eligibility:

Graduated Payment Mortgage Program (Section 245(2))

The Graduated Payment Mortgage (GPM) program facilitates early homeownership for households that expect their incomes to rise by insuring loans that allow homeowners to make smaller monthly payments initially and to increase their payment size gradually over time. It is applicable to single family housing proposed, under construction, or scheduled for substantial rehabilitation.

The maximum insurable amount is the lesser of: (1) maximum Section 203(b) limits; (2) 97 percent of the first \$25,000 of value and closing costs, plus 95 percent of the remainder; or (3) 97 percent of the appraised value and closing costs of the property, minus all of the deferred interest which would accrue during the graduated term. The term of the mortgage is limited to 30 years.

There are five basic GPM plans which vary the rate of monthly payment increases (from 2 to 7-1/2 percent) and the number of years over which the payments increase (5 or 10 years). The greater the rate of increase, or the longer the period of increase, the lower the mortgage payments are in early years. After a period of 5 to 10 years, depending on which plan is selected, the mortgage payments level off and stay at that level for the remainder of the loan. GPM payments increase each year, not each month.

Section 245(b) is a similar program which is limited to first-time homeowners or those who have not owned a home for the last three years.

Eligibility: 6

Low Income Rental Rehabilitation (Section 312)

Provides financing through housing authorities to property owners for rehabilitation of "Existing" rental housing. The owners must sign a contract to keep the units available for Section 8 tenants for a period of 3-4 years.

Eligibility: 2

Urban Development Action Grant (UDAG)

Grants to designated, economically distressed cities and urban counties for residential, commercial, or industrial projects that stimulate private investment. Eligibility is determined by a combination of factors: loss of population and jobs, stagnating or declining tax base, high percentage of poverty, low per capita income change, high unemployment, and deteriorated housing. Housing projects linked to economic development projects (e.g., mixed uses) are eligible activities.

Eligibility: 1

Housing Voucher Demonstration

This voucher program, similar to the Section 8 Existing Housing Program, additionally provides very-low income families with a greater choice in the selection of a rental unit. The voucher permits families to rent units beyond the fair market rents. Monthly housing assistance payments will be based on the difference between a payment standard for the area and 30% of the family's monthly income. For families selected for assistance, preference will be given to those who are occupying substandard housing, are voluntarily displaced, or are paying more than half of their income for rent.

Eligibility: 6

Mortgage Insurance: Land Development (Title X)

This program insures mortgage loans to finance the purchase of land and the development of building sites for subdivisions, including water and sewer systems, streets and lighting, and other installations needed for residential communities. Nonresidential buildings, such as schools or commercial buildings, are not included except for water supply and sewage disposal installations, clubhouses, and parking garages owned and maintained jointly by property owners.

The maximum amount of insurance may not exceed the lesser of: 85 percent of HUD's estimate of the value of the property upon completion of the development, or the total of: (1) HUD's estimate of the development cost, plus (2) the greater of acquisition cost of all outstanding indebtedness secured by the land, plus (3) 50 percent of the difference between the applicable amount in item 2 and HUD's estimate of the value of the land before development; or 80 percent of the estimated value of the land before development plus 90 percent of estimated cost of development. The mortgage term may extend for ten years.

Eligibility: 4,5

Community Development Block Grant (CDBG)

Through the Community Development Block Grant (CDBG) program, HUD provides grants and loans to local government for funding a wide range of community development activities. No local match is required.

As amended under the 1974 Housing and Community Development Act, the Community Development Block Grant program is a consolidation of former categorical grant programs including Urban Renewal, Neighborhood Development Grants, Model Cities, Water and Sewer Grants, Neighborhood Facilities Grants, Open Space Grants, Rehabilitation Grants, and Historical Preservation Grants.

Although spending priorities are determined at the local level, the stated purpose of the law is to provide adequate housing, a suitable living environment, and expanded economic opportunities for persons of low- and moderate-income. A minimum of 51 percent of the CDBG funds provided must be used for the support of activities that benefit low- and moderate-income persons.

Basic eligible activities include, but are not limited to: (1) acquisition and disposition of real property, (2) public facilities and improvements, (3) slum clearance activities, (4) public services, (5) interim assistance, (6) payment of non-federal share of a grant-in-aid program, (7) urban renewal completion, (8) demolition and relocation, (9) removal of architectural barriers to the physically disabled, (10) privately owned utilities, and (11) improvement of sites for assisted housing.

CDBG assistance may be used for the following rehabilitation and preservation activities: (1) rehabilitation of public residential structures, (2) modernization of public housing, (3) rehabilitation of private properties, (4) temporary relocation assistance, (5) code enforcement, and (6) historic preservation.

Except in limited circumstances, Community Development Block Grants may not be used for new construction of housing.

Appropriations of Community Development Block Grant funds are made by Congress annually. The first 3 percent of each year's appropriation goes directly into the discretionary fund of the Secretary of Housing and Urban Development. Those monies are distributed nationwide for technical assistance, emergency housing, and other special projects at the discretion of the Secretary.

The remaining 97 percent of each annual Community Development Block Grant appropriation is divided as follows: 70 percent to urban areas and 30 percent to rural areas. From the urban share, "entitlement" applicants (generally defined as cities of at least 50,000 population and counties of at least 200,000 in population, excluding entitlement cities) receive funds determined by the locality's relative number and percentage of population, households in poverty, and households experiencing overcrowding, growth lag, and age of housing. Entitlement communities are allocated funds annually, but must make yearly certifications and submissions to HUD which conform with the 1974 Housing and Community Development Act, as amended, and the applicable regulations. Cities with populations under 50,000 may execute an agreement with their respective counties to include the city's population as a part of the total county population for the purposes of the entitlement allocation.

Cities and counties not meeting the entitlement population requirement are eligible to participate in the "Small Cities" discretionary program. These jurisdictions must compete for a limited amount of funds administered through state governments.

In order to receive its annual entitlement grant, a locality must submit to HUD, the required certifications (agreements to comply with applicable laws and regulations including the Civil Rights Act and citizen participation requirements), the necessary HUD approved Housing Assistance Plan (HAP), and a copy of its final statements of community development objectives and proposed copy of its final statements of community development objectives and proposed use of CDBG funds. The HAP must include a survey of existing housing stock, a quantification of the housing assistance needs of lower income households, the general location of proposed new construction and rehabilitation activities, and an annual and/or three year goals for meeting the housing assistance needs of lower income households. Every third year, the locality must submit a HAP detailing three-year goals. Each

year, the locality must submit annual goals and a report evaluating progress in meeting the previous years goals.

If the locality makes a complete submission within the established deadlines, HUD will make a full grant award. Grant awards may be reduced or denied if HUD makes a determination that the grantee has failed to carry out its previous approved activities in a timely manner or failed to confirm to the requirements of the law.

Eligibility: 1

Section 108

Section 108 allows HUD to guarantee loans to local governments to be used for the acquisition or rehabilitation of property to stimulate industrial, commercial, or residential development. Recipient local governments must, in turn, pledge current and future Community Development Block Grant (CDBG) funds as security for such loans. The maximum amount that may be guaranteed is three times a city's/county's annual entitlement grant.

CDBG recipients are eligible for Section 108 loan guarantees to finance (1) acquisition of real property for community and economic development purposes; (2) rehabilitation of real property owned or acquired by the local government; and (3) payment of related expenses (interest, relocation, clearance, and site improvements). Application for the guarantee can be made as part of the block grant proposal for a given year. Funds cannot be used for new construction.

The advantage of this program is that it can make a large amount of money available relatively quickly without a city having to wait for receipt of a given year's block grant.

The guaranteed debt takes the form of a note issued under HUD's guidance by designated public agencies to a private lending institution approved by HUD. The terms of the note are specified by HUD; the interest rate is set just slightly above the Treasury Department's borrowing rate. The money may be drawn down as soon as HUD approves the guarantee, but it may only be used to meet current financing needs for approved activities. The entire amount of the loan may be obtained up-front.

Loans guaranteed by Section 108 must be repaid within six years, although the city has some latitude in determining the means of repayment. Repayment terms must be approved by HUD in advance of the project.

Although rates are higher than those on most tax exempt obligations, the program offers potential in the area of land assembly and can give local governments greater mileage from CDBG funds by performing needed activities prior to their receiving the entitlement funds.

Eligibility: 1

Solar Energy and Energy Conservation Bank

The purpose of this HUD program is to reduce the nation's dependence on foreign sources of oil by offering grants or subsidized loans to owners and tenants in residential, commercial, and agricultural buildings for the

purchase and installation of conservation and solar measures. The Solar Energy and Energy Conservation Bank operates through states and provides financial assistance to consumers for solar and energy conservation improvements.

The amount of assistance is based on the applicant's income level for energy conservation improvements; for solar improvements, it is based on the amount of energy saved by the improvement. Individuals must certify that projected earnings fall within a certain range relative to the area median income in order to be eligible for subsidies. In most cases, an energy audit must also be performed. For some solar improvements, a certified design analysis must be performed. The applicant must also certify that a federal tax credit will not be claimed if the Bank provides a subsidy, that minimum property standards will be met for new or rehabilitated buildings, that the installation was completed, and must disclose other federal assistance sought or obtained.

At least 50 percent of available funds will be allocated, with the balance going into a reserve fund. The percentage of allocated funds for a state is determined by a calculation, involving the state's incidence of lower income households, average energy consumption, and other factors.

Individuals are required to certify that sufficient funds are available to match a grant in meeting the cost of the installation.

Individuals can apply directly to counties for funding.

Eligibility: 6

Farmer's Home Administration (FmHA)

The Farmers Home Administration, an agency of the U.S. Department of Agriculture, provides grants and low-cost loans to improve housing in rural areas. Potential recipients include rural residents, government entities, and both nonprofit and profit-motivated sponsors.

Unlike HUD programs which generally operate through banks and other approved lending institutions, FmHA itself makes loans directly to qualified applicants.

FmHA grants and loans (except those under the farm labor program) are made only in rural areas--generally defined as areas with populations under 10,000 or up to 20,000 in credit-scarce regions outside a Metropolitan Statistical Area.

Individual Homeownership (Section 502)

Provides insured loans to families of low- and moderate-income, including senior citizens, who need adequate housing. Interest rates vary according to the cost of government borrowing and the maximum term for repayment is 33 years. Interest credit, which may reduce interest to as low as one percent, may be available to qualified low-income borrowers.

Eligibility: 6

Home Repair Loans (Section 504)

Very-low income homeowners whose houses are severely deficient may be eligible for grants or low-interest loans to make their houses safe and adequate for habitation and remove health hazards. A maximum loan of \$7,500, a maximum grant of \$5,000, or a maximum loan-grant combination of \$7,500 may be available to help very-low income elderly homeowners make necessary repairs to their homes. Applicants must be 62 years of age or older to qualify for grant assistance.

Eligibility: 6

Rental Housing Loans (Section 515)

These insured loans provide modernized rental or cooperative housing for persons with low and moderate incomes and for those age 62 and older in rural communities of not more than 10,000 population. Such loans may also be available in communities between 10,000 and 20,000 population if the facility is not within a SMSA. The loans are repayable in not more than 50 years. Provisions are made for interest reductions under certain circumstances so that low-income tenants may pay a rent within their means. Rent paid by low-income tenants also can be supplemented through a rental assistance program administered by FmHA or HUD's Section 8 rent subsidy program.

Eligibility: 4,5

Farm Labor Housing Loans and Grants (Section 514/516)

This program provides a combination of grants and loans to finance construction, rehabilitation, or purchase of rental housing for farmworkers. Loans and grants may be used to finance infrastructure such as water supply systems and wastewater facilities as well as to develop support facilities such as central cooking and dining facilities, small infirmaries, laundry facilities, and day care centers.

A grant of up to 90 percent of the cost of the project is made, with the remainder loaned at 1 percent interest. Loans are repaid over a 33-year term.

Loans are available to farmers and farmer associations. Both loans and grants are available to public and private nonprofit corporations, and to nonprofit farmworker organizations. Grants are available to eligible applicants only when there is a pressing need and when it is doubtful that such facilities could be provided without grant assistance.

Eligibility: 4 (and farmers and farmer associations)

Rental Assistance Program (Section 521)

This program provides rental assistance to low-income rural families and senior citizens who are living in FmHA-funded projects. The program subsidizes rents that exceed 30 percent of adjusted annual incomes. The subsidy amount is determined by formula, depending on how the FmHA rental project was originally funded.

All FmHA-financed farm labor housing loan and/or grant recipients who are public bodies, nonprofit organizations, or nonprofit organizations of farmworkers are eligible to participate in this program. Rural rental housing loan borrowers who agree to operate the housing on a limited profit or nonprofit basis are also eligible. FmHA borrowers using HUD's Section 8 Existing Housing Assistance Payments may also participate in the FmHA rental assistance program.

Priority will be given to families in existing projects who are paying the highest percentage of income toward rent. In new projects, priority will be based on the date a request for rental assistance is made to FmHA by the borrower (project owner).

The responsibilities of an eligible borrower are:

- o Borrowers must have an approved lease with the family receiving rental assistance.
- o Initially and annually, borrowers must submit a "Tenant Certification" for each tenant.
- o Borrowers must verify income reported by tenants.
- o Borrowers must have their operating budgets approved by FmHA to be eligible for rental assistance.

The term of the rental assistance agreement is five years. Agreements can be renewed for periods of up to five years.

Eligibility: 1,4

Rural Housing Preservation Grants (Section 533)

This program, established in 1985, is designed to assist very low- and low-income rural homeowners to repair and rehabilitate their housing. Governmental entities and nonprofit corporations are eligible to receive and administer housing preservation grants to establish housing rehabilitation projects. At least 80 percent of the grant must be used to provide loans, grants, or other assistance to homeowners to pay any part of the cost of repairing or rehabilitating their homes. Twenty percent may be used to hire personnel to run the housing rehabilitation project and for other administrative expenses.

Housing Preservation grants are intended to make use of and leverage any other available housing programs which provide resources to very low- and low-income rural residents to bring their homes up to code standards. Housing Rehabilitation Projects must serve areas with a concentration of substandard housing and very low- and low-income families. Other criteria considered in the selection of grant recipients include:

- o the applicant's capacity and experience in assisting lower income households and in providing rehabilitation or weatherization services,
- o the ability to minimize the use of grant funds for administration, and
- o the program addresses an overcrowding problem.

Veterans Administration

The Federal Veterans Administration (VA) guarantees loans to qualified veterans to:

- o Buy, build, alter, repair, or improve a home or condominium (including a farm residence to be occupied by the veteran);
- o Buy a mobilehome with or without the lot; and
- o Refinance existing mortgage loans or other liens on a dwelling owned and occupied by the veteran.

The VA-guaranteed loan is made between the veteran and the lender without charge to the lender. No down payment is required by the VA, although the lender may require one.

VA loans are assumable; however, the veteran is required to certify that he/she will be liable for the loan for its full term. The veteran can be released from liability, upon approval of the loan-assuming buyer by the VA; however, the release does not restore the original loan entitlement to the veteran. Each qualified veteran is normally entitled to one VA loan in his or her lifetime.

For information regarding VA loans, contact:

Loan Guaranty Division - Veterans Benefits Office
Veterans Administration Regional Office
211 Main Street
San Francisco, CA 94105
(415) 974-0149
(800) 652-1240

Home Loans

The maximum guarantee amount for home loans may not exceed 60 percent of the cost of the home (including lot) or \$27,500, whichever is less. There is no maximum or minimum mortgage amount, though most lenders use four times the guarantee amount as a rule of thumb. Loan terms are for 30 years at a fixed rate.

Mobilehome Loans

The maximum loan guarantee for mobilehomes is 50 percent of the cost of the mobilehome or \$20,000, whichever is less. Maximum term for single-wide mobilehomes is 15 years. Maximum loan term for double-wide mobilehomes is 25 years.

Disposal of Foreclosed Homes Program

Houses acquired by the VA through defaults are offered for sale to the general public at market value, with financing guaranteed by the VA, usually at or near VA/FHA interest rates. Down payments are below comparable real estate sales; closing costs are minimal. These homes are sold through real estate brokers, and the VA pays the commission.

Specially Adapted Housing

The VA offers home purchase grants of up to \$32,660 to veterans who have lost the use of lower extremities due to a service-connected disability. The VA has established special feature standards for both newly constructed and existing homes eligible for VA grants. These include site considerations such as walks, ramps, handrails, garages, and entrances; bathroom and kitchen features; and other interior details, such as doors, windows, corridors, closets, and wall switches.

Eligibility: 6 (Military veterans and their survivors)

Department of Health and Human Services

Low-Income Home Energy Assistance

This program makes funds available to states and other jurisdictions to assist eligible households to meet home energy costs. Grantees then make payments directly to an eligible low-income household or, on behalf of such household to an energy supplier for the cost of home energy. Up to ten percent of these funds may be used for state planning and administration. Up to 10 percent may be transferred to other block grants administered by the Department of Health and Human Services. Fifteen percent may be used for low cost weatherization. There is no requirement to match federal funds with state funds. Allocations to states are based on the percentage of total funds received by a state in FY 81.

Eligible households are those whose income does not exceed the greater of 150 percent of the poverty level or 60 percent of the state median income, or households containing recipients of, or those eligible to receive Aid to Families with Dependent Children (AFDC), Supplemental Security Income (SSI), food stamps, or certain veteran's benefits. In 1984 the average assistance for heating costs was about \$200 per household nationally.

Grantees also provide emergency crisis assistance, assistance with heating and cooling costs, and weatherization assistance.

Eligibility: State, territories, and Indian tribal governments which request direct funding.

Contact: Office of Economic Opportunity
1600 Ninth Street, Suite 340
Sacramento, CA 95814
(916) 322-2940
(800) 433-4327

Community Development Credit Union Revolving Loan Fund (CDCU)

This Department of Health and Human Services program is designed to support community based credit unions in their efforts to stimulate economic development activities which result in increased income, homeownership, and employment opportunities for low-income households, to stimulate community revitalization efforts which result in improved community facilities, housing, and transportation, and to provide needed financial and related services to residents within the communities they serve.

Existing credit unions may be eligible for a maximum loan of \$200,000 and organizations proposing to form a credit union may be eligible for a \$100,000 loan. Loans must be repaid within 5 years. Interest rates on CDCU loans are 4 percentage points below the average market rate for Treasury Notes of comparable duration, or 5 percent per annum, whichever is more.

Loan funds may be used for the following services and activities:

- o Improving housing conditions and increasing homeownership through a variety of mechanisms including self-help and cooperative housing developments, assistance in securing mortgages, site development, and construction financing;
- o Financial counseling;
- o Increasing employment opportunities by aiding existing businesses and promoting the establishment of new business;
- o Increasing the membership and the capitalization base of the credit union.

Contact: Office of State and Project Assistance
 Office of Community Services
 Department of Health and Human Services 200
 Independence Avenue, S.W.
 Washington, D.C. 20201
 (202) 653-5675

Department of Energy

Weatherization Assistance for Low-Income Persons

The goal of this program is to insulate the dwellings of low-income persons, particularly the elderly and disabled, to conserve energy and aid those persons least able to afford higher utility costs. Grant money is allocated to states for disbursement to community-based organizations (all private/nonprofit including units of local government). Fund allocation is based on annual heating degree days, cost of energy within the county, the county's low-income population, and its elderly, disabled, and American Indian low-income population. The funds are used for attic insulation caulking, weather-stripping and storm windows, furnace efficiency modifications, and certain mechanical measures to heating and cooling systems. The maximum expenditure per dwelling unit is \$1,000.

Eligibility: States and, in certain instances, Native
 American tribal organizations

Contact: Office of Economic Opportunity
 1600 Ninth Street, Room 340
 Sacramento, CA 95814
 (916) 322-2940

STATE PROGRAMS

California Housing Finance Agency (CHFA)

The California Housing Finance Agency was created in 1975 to help meet the state's need for housing affordable to low- and moderate-income persons and families. CHFA provides below-market interest rate mortgage capital through the sale of tax-exempt notes and bonds

For information on CHFA programs, contact:

California Housing Finance Agency
1121 L Street, 7th Floor
Sacramento, CA 95814

Home Mortgage Purchase Program (HMP)

This program provides a 30-year fixed-rate mortgage with monthly mortgage payments (principal and interest) which remain the same until the loan is fully repaid. CHFA commits funds to builders or developers, who in turn make the low interest rate mortgage available to new homebuyers through private lenders. Interest rates vary with each bond sale, but are usually 1.5 to 3 percent below the prevailing market interest rates; HMP interest rates, therefore, may differ among developments. In order to qualify for an HMP loan, the borrower must be a first time homebuyer (or not have owned a home as a principal place of residence during the previous three years), have a moderate income, have the capacity to make a minimum of 5 percent cash downpayment and pay closing costs as required, be able to meet loan underwriting standards, and not have previously obtained a CHFA loan.

Eligibility: 5

Cal-First Home Buyers Program

After a first time homebuyer acquires a first mortgage on a home, a qualified lender can offer a CHFA financed second mortgage that will decrease housing cost payments during the first six years of home ownership. During the following ten years, the mortgage payments increase to repay the second mortgage buy down.

Eligibility: 6

Second Unit Financing Program

A pilot program providing a source of financing for the addition and/or rehabilitation of second units utilizing Title I insured loans, which are limited to a maximum of \$17,500. The second units will provide housing for tenants with incomes not exceeding 80 percent of the median upon initial occupancy. Borrowers will be owner-occupants of detached single family housing whose household incomes upon application do not exceed 120 percent of the median income.

Eligibility: 6

CHFA Self Help Housing Program

CHFA has agreed to provide a source of financing for construction and permanent financing of single family homes built by the self help construction method. Under this program, nonprofit housing organizations supervise families in the construction of their own homes, thereby reducing costs by 20 to 40 percent. Sweat equity serves as the down payment, provided that the loan does not exceed 80 percent of the appraised value.

Eligibility: 4

Multi-Family Rehabilitation and Infill New Construction Program

CHFA developed the multi-family rehabilitation program in 1983 to provide a steady source of tax-exempt financing for use with the Rental Rehabilitation Grant Program, CDBG or other rental rehabilitation efforts, and Section 8 subsidies. The program also enables communities to utilize statewide bond issues, rather than attempting to structure their own smaller, separate bond issues. At least 20 percent of the units developed under this program must be available to low-income renters; however, through use of CHFA's bond funds and local financial resources, the percentage has actually been much higher -- 86 percent as of June 30, 1986.

Eligibility: 1

80/20 Multi-Family Rental Housing Program

As of January 1, 1986, state law requires that all multi-family projects financed with tax-exempt bond proceeds set aside 10% of the units for low income tenants and 10 percent for very low income tenants. Current federal law simply requires that 20 percent of the units be set aside for the low income. The balance of the units under state and federal law may be operated with market rents. CHFA sells state revenue bonds in order to finance rental developments which meet these requirements.

Eligibility: 5

80/20 - State/Local Pilot Rental Housing Finance Program

This program supplies funding which effectively "buys-down" the interest rate on a project's take-out financing. This buy-down, referred to as a feasibility loan, not to exceed \$150,000 per project, will reduce monthly rents and thereby make more housing available to those who fall into low- and very low-income categories. Projects considered for the program must carry with them participation from a sponsoring local government in the 20 percent - 30 percent range. 100 percent of the units in these projects are to be reserved for low- and moderate-income tenants (i.e., no market-rate rentals are allowed).

Eligibility: 4

California Department of Housing and Community Development (HCD)

The Department of Housing and Community Development (HCD) is the state agency that has principal responsibility for assessing, planning for, and assisting communities to meet the housing needs of low- and moderate-income Californians.

The following section describes in greater detail the housing and community development-related programs and activities of HCD.

For information regarding HCD programs, contact:

Department of Housing & Community Development
Division of Community Affairs
921 10th Street
Sacramento, CA 95814
(916) 445-4782

State Community Development Block Grant Program (CDBG)

Cities with populations under 50,000 and those counties with populations under 200,000 which do not participate in HUD entitlement programs are eligible to participate in the state CDBG program. CDBG funds may be used for a variety of housing, economic development, public facility, and public service activities.

Eligibility: 1

Deferred Payment Rehabilitation Loan Program (DPRLP)

The DPRLP provides deferred payment loan funds to local government agencies to assist with the rehabilitation of housing for low and moderate income households. The major objectives of the DPRLP are to rehabilitate housing to assure the continued viability of neighborhoods, to eliminate health and safety hazards, to prevent overcrowding, and to ensure the availability of low-cost housing.

Eligibility: 1,4

Special User Housing Rehabilitation Program (SUHRP)

The SUHRP provides three percent 30-year deferred payment loans, which provide "up-front" subsidies for the rehabilitation and/or acquisition of substandard housing. SUHRP funds may be used for apartments which will be occupied by the elderly, for group residences and apartments which will be occupied by the physically, developmentally, or mentally disabled, and for residential hotels which will be occupied by low- or very-low income persons.

Eligibility: 1,4,5

California Self-Help Housing Program (CSHHP)

The CSHHP (formerly the California Housing Advisory Service) provides grants and loans to self-help housing organizations that assist low and moderate income families in the building or rehabilitating of their own homes.

Both mortgage and technical assistance funds are available. CSHHP technical assistance grants are used to cover the various administrative and training costs associated with the provision of technical assistance to self-help households. The services include training and supervision of self-help builders, loan packaging and counseling services, and workshops. Mortgage assistance funds are used to reduce the cost of the self-help units.

Eligibility: 1,4

Senior Citizens Shared Housing Program (SCSH)

The SCSH program provides grants to local government agencies to assist seniors in finding others with whom they can share housing. Services funded by the program include outreach, information and referral, client counseling, placement, and followup. The program results in reduced housing costs, prevention of premature institutionalization, efficient use of existing housing stock, and increased security and companionship for seniors.

Eligibility: 1, 4

Urban Predevelopment Loan Fund (PLP)

The PLP provides seven percent loans to local government agencies and nonprofit corporations. The loans can be used for a variety of predevelopment expenses incurred in securing long term financing for the production or rehabilitation of subsidized low-income housing in urban areas. Loan terms range from one to three years and proceeds may be used to purchase land or land options, to pay advance fees for architectural, engineering, consultant, and legal services, to pay permit, bonding, and application fees, and to finance site preparation (including water and sewer development). Loans are also made to eligible borrowers for land purchase to "land-bank" sites for future development of low-income housing. Loans may not be used for administrative expenses or construction financing.

Eligibility: 1,2,4

California Homeownership Assistance Program (CHAP)

Provides up to 49 percent of the purchase price of a dwelling in the form of a mortgage participation loan with an institutional lender to enable eligible households to purchase housing they would otherwise be unable to afford. When the unit is sold, the State shares in the sales proceeds in proportion to its original investment. The balance of the financing comes from private or other public lending institutions. Under this program, HCD may assist (1) renters to purchase their units who otherwise would be displaced by condominium or stock conversions; (2) mobilehome park residents to purchase their spaces if the park is to be converted to a condominium or stock cooperative; (3) households to purchase a mobilehome placed on a permanent foundation; (4) eligible households to purchase mobilehomes placed on permanent foundations; and (5) stock cooperatives or non-profit corporations to develop or purchase mobilehome parks.

Eligibility: 6

Mobilehome Park Assistance Program (MPAP)

The MPAP provides financial and technical assistance to low income mobilehome park residents or to organizations formed by park residents who wish to own and/or operate their mobilehome parks. MPAP loans bear a seven percent interest rate and conversion loans must be repaid within three years, but repayment of blanket and individual loans may be scheduled for up to 30 years.

Eligibility: 6

Rental Housing Construction Programs (RHCP)

The RHCP was designed to stimulate the production of affordable, well-constructed, energy efficient rental units available to low- and very low- income households. The program funds are utilized through three basic financing approaches: (1) a direct financing component which channels HCD funds directly to local entities; (2) the Rural Rental Assistance component, which uses RHCP funds to writedown rents on projects financed through the Farmers Home Administration (FmHA) 515 Program; and (3) the California Housing Finance Agency (CHFA) set-aside.

Eligibility: 1

Emergency Shelter Program (ESP)

The ESP provides direct grants to local government agencies and nonprofit corporations that shelter needy people and families on an emergency basis. Eligible activities include rehabilitation/renovation, expansion of existing facilities, site acquisition, equipment purchase, one-time rent vouchers to prevent eviction, and administrative costs (no more than two percent of any single grantee award). New construction is not an eligible program activity.

Eligibility: 1,4

Independent Living Housing Assistance Program (ILHAP)

The ILHAP provides funds in the form of housing assistance payments to agencies that provide support services to the developmentally, mentally, or physically disabled which are designed to provide a transition to independent living. Any disabled individual who is in need of a transitional, independent living skills training program, may be a tenant of a dwelling unit receiving housing assistance payment benefits. Housing assistance will be provided to lease group homes and units of apartment complexes.

Eligibility: 1

Franchise Tax Board

Homeowner and Renter Assistance Law

The Homeowner and Renter Assistance Law provides property tax relief and rental assistance to low-income citizens 62 years of age or older, and to totally disabled or blind persons of any age.

The State refunds a portion of the property tax on a home occupied by a senior or disabled homeowner, depending on the value of the home and the homeowner's income. Homeowner Assistance is granted only on the first \$34,000 of the full value (formerly \$8,500 of the assessed value), as shown on the property tax bill, less the Homeowners or Veterans Exemption. No assistance is provided on that part of a residence's full value which exceeds this amount.

To be eligible for the Homeowner Assistance Program, a homeowner must:

- o Be 62 years of age or older, or totally disabled, or blind as of December 31 of the year claimed;
- o Have been a resident of California on or before December 31 of the year claimed;
- o Have owned and occupied the home on December 31 of the year claimed; and
- o Have had a household income for the year claimed of no more than \$12,000. (Household includes the homeowner and all individuals, except minors, students, and renters who lived in the home during the year claimed.)

Claims must be filed with the Franchise Tax Board between May 16 and August 31 following the year claimed.

Renter Assistance provides relief to renters who:

- o Were 62 years of age or older or totally disabled or blind as of December 31 of the year claimed;
- o Were California residents on December 31 of the year claimed;
- o Occupied a rented California residence between January 1 and December 31 of the year claimed;
- o Paid at least \$50 per month in rent for the year claimed; and
- o Had a household income for the calendar year claimed of not more than \$12,000. (Household members include the renter, the renter's spouse, and all other individuals who lived in the rented dwelling from January 1 to December 31, except for minors, qualified students, other renters, and the owner of the rented premises.)

The claim must be filed with the Franchise Tax Board between May 16 and August 31 following the year claimed.

Persons who received welfare benefits or claimed the renter's credit allowed by the California Personal Income Tax are eligible for renter assistance if all of the qualifications listed above are met.

California renters who filed individual income tax returns are eligible to receive a renters' credit of \$60 for single persons and \$137 for married couples (filing joint claims) or unmarried heads of household if:

- o The renter was a California resident on March 1 of the year for which the credit is claimed; or
- o The individual, as of March 1, rented and occupied, as a principal place of residence, a house or dwelling in California (owning and occupying a mobilehome situated on rented land satisfies this requirement).

The Renters Credit is not allowed if:

- o The rented property was exempt from property taxes, unless the renter was required to pay property taxes on his or her possessory interest in the residence;
- o The renter lived with and was claimed as a dependent for income tax purposes by another person; or
- o The renter or spouse was granted the homeowners' property tax exemption unless the spouse maintained a residence separate from that of the renter for the entire taxable year.

A person who qualifies for the Renters Credit may also file for Renters Assistance, but should not receive the Homeowner Assistance or the Homeowners Property Tax Exemption.

For information contact:	Franchise Tax Board
	P.O. Box 1588
	Sacramento, CA 95807
	(916) 369-0500
	(800) 852-5711
	(800) 852-7050

Solar Energy Credit

An individual may qualify for a tax credit if he or she installed a solar energy system or added to a previously installed system, or carried over this credit from 1982. The California credit is substantially different from the federal credit. To be eligible for a tax credit, the system must conform with the guidelines established by the California Energy Commission.

Individuals may qualify for a tax credit if energy conservation measures apart from a solar energy system were installed, or if this credit were carried over from 1983.

Energy conservation measures include insulation, weather stripping, pool covers, low-flow shower heads, and other items approved pursuant to the Federal Residential Conservation Service Plan.

The solar energy and energy conservation measure credits sunset on January 1, 1987 unless a statute, chaptered before this date, deletes or extends the date.

Contact: Franchise Tax Board
P.O. Box 1588
Sacramento, CA 95807
(916) 369-0500
(800) 852-5711
(800) 852-7050

California Energy Commission
1516 9th Street
Sacramento, CA 95814
(800) 852-7516

Tax Credit for Removal of Architectural Barriers

Sections 17237.5 and 24380 of the Revenue and Taxation Code permit taxpayers to deduct the entire cost of repairing or remodeling "any building, facility, or transportation vehicle owned by the taxpayer to facilitate its use by disabled or elderly individuals."

The deduction must be taken for the year in which the remodeling or repair work took place, and must be in lieu of any other tax deduction for remodeling or repair to correct wear and tear or obsolescence. Deductions cannot exceed \$25,000 in any taxable year.

Repairs must be made in compliance with the standards prescribed in Section 4450-51 of the Government Code.

Contact: Franchise Tax Board
P.O. Box 1588
Sacramento, CA 95807
(916) 369-0500
(800) 852-5711
(800) 852-7050

Department of Veterans Affairs

The Department of Veterans Affairs, through its Division of Farm and Home Purchases, administers the Cal-Vet Loan program, which assist qualified California war veterans to purchase farms and homes at reasonable financing costs. Funds are obtained through the sale of General Obligation bonds. These bonds and the administrative costs of the program are repaid by the veterans who participate.

Cal-Vet Loan Program

To qualify for a Cal-Vet loan, a veteran must be born in California or have been a bona fide resident of California at the time of entry or re-entry into active military duty. He/she must have served at least 90 days on active duty, unless discharged because of service-connected disability, and must have served during a qualifying war period. Discharge or release from active duty must have been under honorable conditions.

Qualifying PropertiesMaximum Loan Allowed

Single family homes, including condominiums and townhouses	\$ 75,000
Mobilehomes on land owned by the borrower	75,000
Mobilehomes in an approved mobilehome park	55,000
Working farm producing sufficient income to provide loan and tax payments	200,000

Homes equipped with solar energy heating devices may be approved for up to an additional \$5,000 loan.

Where the purchase price is \$35,000 or less, the Department may loan 97 percent of the appraised value of the property. Where the purchase price is greater than \$35,000, the Department may loan 95 percent of the appraised value of the property, but in no event may the loan be more than the purchase price or the maximum stated above, whichever is less.

On farm properties, the loan amount cannot exceed 95 percent of the Department's appraised value, which is based upon net income from agricultural production.

A veteran who plans to have a home constructed (construction loan) and later to have it financed through the Cal-Vet loans have a maximum term of 25 years.

Cal-Vet Loan information is available at (800) 952-5626.

Disabled Veterans' Tax Exemption

Totally disabled veterans who own and occupy a single family dwelling, a condominium, a cooperative, or a houseboat, or occupy a state-licensed mobilehome on their own land as of March 1 each year, are exempt from property tax up to \$100,000 of the assessed value of the property. If the veteran is blind or has lost the use of two or more limbs (but has not been classified as totally disabled), the exempt amount is \$40,000 of assessed value. If the household income is not more than approximately \$24,000 a year (\$34,000 if the veteran filed and qualified for either the \$40,000 or \$60,000 exemption in 1983), the exemption amount is \$60,000 of the assessed value.

There is a one-time-only filing procedure for the \$40,000 while annual filing is required for the \$60,000 exemption. If the claim is made on April 15, the full exemption is available. If a claim for the \$40,000 or \$60,000 exemption is filed between April 16 and December 1, 80 percent of the exemption is available. There is no late filing for the \$100,000 exemption. Claims filed after December 1 are not eligible for the exemption until the following year.

The Disabled Veterans' Exemption will terminate if:

- o The property was not the principal place of residence as of 12:01 a.m. on March 1 of the year claimed;
- o The disability is no longer rated a 100 percent disability by the rating agency;
- o Visual acuity in both eyes (if basis for exemption was blindness) is no longer less than 5/200; or, if the basis were loss of use of two limbs, use of one or both has been restored; or
- o Claimant was a surviving spouse of a disabled veteran and has remarried.

For additional information on the Disabled Veterans Property Tax Exemption, contact the local County assessor's office.

Board of Equalization

Homeowners' Property Tax Exemption

Administered by the State Board of Equalization through county assessors' offices, the Homeowners Property Tax Exemption has been in existence since 1968. This provision of the tax code allows a specified amount of the assessed value of a homeowner's property to be exempted from property tax. This amount is currently \$7,000 if a claim is filed between March 1 and April 15, and \$4,600 if the claim is filed between April 16 and December 1. Once the December 1 deadline has passed, no exemption may be allowed for that particular tax year.

There is a one-time-only filing procedure and homeowners who continue to occupy their property on March 1 of the year claimed need not file again. Claims are mailed to new homeowners by March 15 each year.

To qualify for this exemption, a claimant must:

- o Own and occupy a dwelling as the principal place of residence as of March 1; and
- o File or have on file a claim for homeowners property tax exemption with the county assessor in the county in which the property is located.

Note: Persons who qualify for the Homeowners Property Tax Exemption may also claim Homeowners Assistance from the Franchise Tax Board; however, they may not claim either the Renters Credit or Renter Assistance from that Agency.

For additional information on the Homeowners Property Tax Exemption, contact the San Joaquin County Assessor's office.

LOCAL PROGRAMS

Non-Profit Housing Development Corporation

A non-profit housing development corporation (HDC) is a corporation created specifically to promote, assist, or sponsor housing for low and moderate income people. A non-profit HDC does not build "public housing." Rather, it builds or rehabilitates privately-owned housing for people who cannot afford market rate housing but whose incomes are generally above the poverty level. Non-profit HDCs can build housing for families, the elderly, and the disabled. HDCs may sponsor limited equity cooperative housing.

Landbanking

Landbanking is the purchase of developable land by a jurisdiction for future use. Many jurisdictions have used landbanked sites to provide affordable housing for low and moderate income people. There are two variations of the landbanking process. A developer may go to the locality with a parcel in mind which he/she cannot afford to buy, and the locality will buy it for him/her. Alternatively, the community may choose a parcel and keep it until a developer comes along to build on it. In this case, the jurisdiction has several options regarding control of the site. The most obvious is outright purchase, but this may not be the best way for the locality to use the funds set aside for landbanking. Other options include: the option to purchase, at a stated price under stated conditions; the option of first refusal, under which the property owner agrees to notify the community in case an offer is made by a second party to purchase the land; and a lease, which is useful if the property owner is unwilling to sell but is willing to develop the land. Sources of funds for landbanking have usually come from a jurisdiction's Community Development Block Grant (CDBG) monies, although money from a community's general fund can and has been used.

Limited Equity Cooperatives

A limited equity cooperative provides low and moderate income residents with the opportunity for affordable home ownership. In a limited equity co-op, like a market co-op, the residents form a non-profit corporation which has as many shares as there are units in the building. The units may be converted from an existing rental building, or a new building may be constructed as a limited equity cooperative.

To live in a co-op, the residents purchase a share by making a down payment. The residents' monthly payment is their share of the mortgage payment plus the costs of utilities and maintenance. A share entitles co-op members to the use of common areas and their dwelling unit. While they do not own their dwelling unit, co-op members may deduct their share of interest and tax payments when filing tax returns because they are part owners of the building.

Limited equity co-ops differ from market co-ops primarily in that the cost of buying a share in a limited equity co-op is generally measured in the hundreds rather than thousands of dollars and can rise only a certain amount each year. The point of limiting the equity buildup is to remove the units from market forces (unlike market rate co-ops), as well as from the rent increases of a for profit owner (unlike most rentals). Thus, the dwelling is kept permanently affordable to low and moderate income people.

Mortgage Revenue Bonds (MRBs)

Tax exempt mortgage revenue bonds are a source of funds which may be used to raise money for mortgage insurance and mortgage loans. The money that is generated by the bonds can then be issued at below market rates, for both single family owner-occupied homes and multi-unit rental housing. The loans may be used for rehabilitation or new construction. Outstanding mortgage loans are collateral for the bonds. Housing finance agencies are created to issue such bonds, but other agencies, such as housing authorities, local governments, redevelopment agencies, and the State may also do so. The interest rate on the mortgage loans issued by these agencies is usually around 1-1/4 percent above the interest rate paid to bondholders. Private lenders originate the loans, send them to the city of agency, and service the loans. Private lenders collect a portion of the 1.25 percent for their services.

All currently proposed versions of federal tax simplification would eliminate the tax-exempt status of MRBs and would consequently jeopardize their attractiveness to investors. This source of funding will probably, therefore, cease to be a viable alternative to provision of affordable housing.

Mortgage Credit Certificates (MCCs)

Local housing finance agencies may also now issue Mortgage Credit Certificates in lieu of Mortgage Revenue Bonds. Home purchasers who receive MCCs are entitled to an income tax credit equal to a specified percentage of the interest they pay during the tax year on the mortgage on their principal residences.

APPENDIX II-B

SPECIAL HOUSING REQUIREMENTS

In addition to requiring each city and county adopt a housing element, the California Legislature has enacted some very specific requirements to ensure that local regulatory procedures do not constrain housing development. This appendix summarizes these special housing mandates.

Findings on Housing Limits

Any city or county adopting or amending its general plan in a manner that limits the number of units that may be constructed on an annual basis must make specified findings concerning the efforts it has made to implement its housing element and the public health, safety, and welfare considerations that justify reducing the housing opportunities of the region (Government Code Section 65303.8).

Housing Disapprovals and Reductions

When a proposed housing development complies with applicable local policies and regulations in effect at the time the application is determined to be complete, the local agency may not disapprove the project or reduce its density unless it makes specified findings (Government Code Section 65589.5).

Solar Energy Systems

Cities and counties may not enact zoning provisions that effectively prohibit or unnecessarily restrict the use of solar energy systems, except for the protection of public health or safety (Government Code Section 65850.5). Allowable "reasonable restrictions" include those that do not significantly increase the cost of the solar system or significantly decrease its efficiency and those that allow for an alternative system or comparable cost and efficiency.

Secondary Residential Units

To encourage establishment of secondary units on existing developed lots cities and counties are required to either (1) adopt an ordinance based on standards set out in the law authorizing creation of second units in residentially zoned areas; or (2) where no ordinance has been adopted, allow second units by use permit if they meet standards set out in the law (Government Code Section 65852.2). Local governments are precluded from totally prohibiting second units in residentially zoned areas unless they make specific findings.

Mobilehomes in Single Family Zones

Cities and counties may not totally prohibit installation of mobilehomes on permanent foundations on lots zoned for single family dwellings (Government Code Section 65852.3). However, cities and counties may specify those single family zoned lots upon which mobilehomes may be placed. Cities and counties may subject mobilehomes to the same standards that apply to single family dwellings.

Mobilehome Parks - Permitted Uses

A mobilehome park is deemed by state law to be a permitted use on all land general planned and zoned for residential use (Government Code Section 65852.7). However, cities and counties may regulate mobilehome parks by use permit.

Growth Limiting Ordinances

In adopting zoning ordinances, cities and counties must consider the effects of such ordinances on the housing needs of the region and balance these regional needs against the needs of their residents for public services and the available fiscal and environmental resources (Government Code Section 65853.6). Any city or county adopting a zoning ordinance that limits the number of housing units that may be constructed on an annual basis must make findings concerning the public health, safety, and welfare considerations of the city or county that justify such action.

Mobilehome Park Conversions

Any person proposing to convert a mobilehome park to another use must prepare and file a report on the impact of the conversion on the displaced mobilehome park residents (Government Code Section 65862.7 and 66427.4). The city or county with jurisdiction must consider the impact report at a public hearing and may require as a condition of approval of the conversion that the project sponsor mitigate the impacts of displacement.

Notification on Mobilehome Park Conversions

A city or county that has received an application for a mobilehome park conversion must notify the applicant at least 30 days prior to any hearing or action of state and local requirements for applicant notification or mobilehome owners and park residents concerning the proposed change (Government Code Section 65863.8). No action may be taken on the application until the applicant has satisfactorily verified that mobilehome owners and park residents have been properly notified.

Mobilehome Park Conversion Mitigation

Cities and counties when approving a subdivision map for conversion of a mobilehome park must mitigate the impact of such conversion by (1) zoning for additional replacement housing; (2) making a finding that there is adequate space in existing mobilehome parks or adequate land zoned for mobilehomes development; (3) requiring the developer to mitigate the impact; or (4) making a finding that mitigation is infeasible (Government Code Section 66427.4).

Limitations on Development Permit Fees

Fees charged by local public agencies for zoning changes, variances, use permits, building inspections, building permits subdivision map processing, or other planning services may not exceed the estimated reasonable cost of providing the service for which the fee is charged (Government Code Sections 54990 and 65909.5). Fees may exceed this limit only with a two-thirds vote of the electorate.

Residential Zoning

Cities and counties must zone a sufficient amount of vacant land for residential use to maintain a balance with land zoned for non-residential use (e.g., commercial and industrial) and to meet the community's projected housing needs as identified in the housing element of the general plan (Government Code Section 65913.1).

Residential Subdivision Standards

Cities and counties may not impose standards for design and improvement for the purpose of making the development of housing for any and all economic segments of the community infeasible (Government Code Section 65913.2).

Coordinated Permit Processing

Each city and county must designate a single administrative entity to coordinate the review and decision-making and provision of information regarding the status of all applications and permits for residential, commercial, and industrial developments (Government Code Section 65913.3).

Density Bonuses

When a developer agrees to construct at least 25% of the total units in a housing development for low or moderate income households, 10% of the total units for lower-income households, or 50% of the total dwelling units for qualifying senior citizens, the city or county must either grant a density bonus or provide other incentives of equivalent financial value (Government Code Section 65915). The density bonus must increase by at least 25% the other maximum allowable density specified by the zoning ordinance and the land use element of the general plan. Each city or county must set up procedures for carrying out these provisions.

Density Bonuses for Condominium Conversions

When a developer proposing to convert apartments to condominiums and agrees to provide at least 33% of the total units in the proposed condominium project for low or moderate income households, at least 15% of the total units for lower income households, or at least 50% for qualifying senior citizens, the city or county must either grant a density bonus or provide other incentives of equivalent financial value (Government Code Section 65915.5). The density bonus must increase by at least 25% over the number of apartments to be provided within the existing structure proposed for conversion.

CEQA and Density Reductions

Cities and counties may deny or reduce the density set forth by the general plan for a housing project only as a mitigation measure for a specific adverse impact upon public health or safety pursuant to the California Environmental Quality Act and only when there is no other feasible mitigation that would achieve comparable density results (Public Resources Code Section 21085).

Residential Energy Conservation

Cities and counties are required to adopt energy conservation standards for new residential dwellings (excluding apartment houses with four or more stories and hotels). This law went into effect June 15, 1983.

Incentives for Low-Income Housing Development

Local governments are required to provide specified incentives, which may include reduction of site development standards, density bonuses, mixed use zoning approval, or other incentives which result in identifiable cost reductions, for developers who set aside 20% or more of a development's units for low-income households. (Government Code Section 65913.4) Any density bonus granted pursuant to this provision is an alternative to, and not in addition to, an otherwise granted density bonus.

Redevelopment Replacement Housing

Redevelopment plans must provide replacement housing on a "one-for-one" basis for low and moderate income persons displaced by redevelopment activity. (Health and Safety Code Section 33334.5).

Tax Increment Funds for Housing

Redevelopment agencies must use at least 20% of tax increment revenues generated by a redevelopment project to increase and improve the community's supply of housing for persons of low and moderate income (Health and Safety Code Section 33334.2). Certain findings may be made by the agency to set aside less than 20% if no need exists for such housing, if less than 20% is required to meet the need, or if a substantial effort to meet the needs is being made.

CHAPTER III. POPULATION

CHAPTER III

POPULATION

INTRODUCTION

Understanding who lives in a community and how the population has grown and is expected to grow in the future is important to establishing the city's land use patterns and setting policies for the provision of housing and public facilities and services. This chapter reviews historical population trends, current demographics, and population projections for Manteca and the county.

HISTORICAL POPULATION GROWTH

Since the turn of the century, Manteca has shown steady growth. For most of its incorporated existence, Manteca has been the fastest growing city in San Joaquin County. In 1910, prior to its incorporation, Manteca had 80 residents. By 1930, the city had grown to 1,614.

Following World War II, Manteca's population began to swell, almost doubling between 1940 and 1950. During the 1950s the city's population boomed, increasing over 160 percent in the ten year period. During the following two decades, Manteca's population continued to grow at an average annual rate of 6.8 to 8.0 percent.

Growth slowed somewhat in the early 1980s, but rebounded in 1985 with a 11.4 percent growth rate. Table III-1 and Chart III-1 illustrate Manteca's growth since 1930.

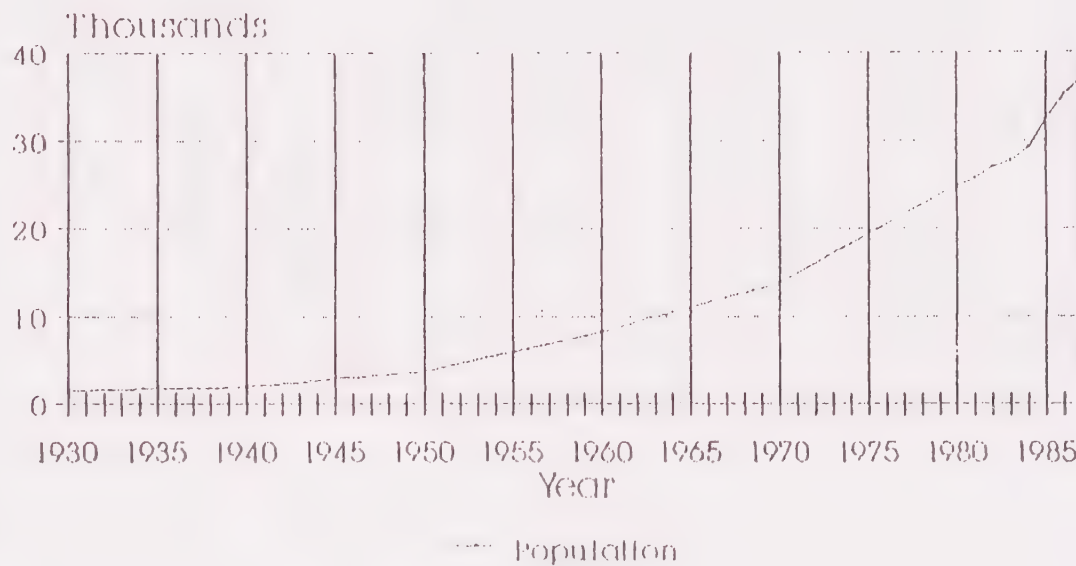
TABLE III-1

POPULATION GROWTH
Manteca
1930-1985

<u>Year</u>	<u>Population</u>	<u>Increase</u>	<u>Annual % Increase</u>
1930	1,614		
1940	1,981	367	2.3%
1950	3,804	1,823	9.2%
1960	8,242	4,438	11.7%
1970	13,824	5,582	6.8%
1980	24,925	11,101	8.0%
1981	25,705	780	3.1%
1982	26,978	1,273	5.0%
1983	27,746	768	2.9%
1984	29,227	1,481	5.3%
1985	32,545	3,318	11.4%
1986	35,307	2,762	8.5%
1987	37,125	1,818	5.1%

Sources: U.S. Bureau of the Census; California Department of Finance

CHART III-1 POPULATION GROWTH 1930-1987



Source: U.S. Bureau of the Census;
California Department of Finance

As table III-2 shows, during the 1970s, the rate of population growth in Manteca was approximately four times that of the county or state. While Manteca's average annual growth rate has slowed since 1980, it still exceeds the county's rate and is over twice that of the state.

In addition to those residents living within Manteca's city limits, the Consultant Team estimates that there are approximately 12,000 persons living in the unincorporated Planning Area.

TABLE III-2

POPULATION GROWTH COMPARISON
Manteca, San Joaquin County, California
1960-1985

Year	Manteca		San Joaquin County		California	
	Population	% Annual Change	Population	% Annual Change	Population	% Annual Change
1960	8,242		249,989		15,863,000	
1970	13,824	6.8	290,208	1.6	19,953,134	2.6
1980	24,925	8.0	347,342	2.0	23,667,902	1.9
1981	25,705	3.1	355,569	2.4	24,212,000	2.3
1982	26,978	5.0	366,966	3.2	24,469,500	1.0
1983	27,746	2.9	378,577	3.2	24,944,700	1.9
1984	29,227	5.3	391,752	3.5	25,415,300	1.9
1985	32,545	11.4	407,462	4.0	25,857,500	1.8
1986	35,450	8.9	423,200	3.9	26,637,000	3.0
1987	37,125	4.7	435,733	3.0	27,292,349	2.5

Sources: U.S. Bureau of the Census; California Department of Finance

TABLE III-3

POPULATION GROWTH
San Joaquin County and Cities
1960-1987

	1960	1970	1980	1987
Escalon	1,763	2,367	3,127	3,731
Lodi	22,229	28,691	35,221	45,794
Manteca	8,242	13,824	24,925	37,125
Ripon	1,895	2,679	3,509	6,100
Stockton	81,321	107,320	149,779	184,978
Tracy	11,289	14,724	18,428	27,279
Unincorporated	118,251	120,259	112,353	130,726
San Joaquin County	249,989	290,208	347,342	435,733

Sources: U.S. Bureau of the Census; California Department of Finance

POPULATION CHARACTERISTICS

Age and Sex Distribution

Tables III-4, III-5, and III-6 show various breakdowns of age structure for Manteca as well as for San Joaquin County as a whole and California. As Table III-6 shows, Manteca's population in 1980 was significantly younger than that of the county or the state, with a median age of 27.5, compared with 29.8 for San Joaquin County and 29.9 statewide. The difference can be attributed to a large population of children under 18 and a small population of residents over the age of 65. As a percentage of total population, Manteca's 65 and older population was approximately 26 percent smaller than that of San Joaquin County, and 18 percent smaller than California's.

TABLE III-4

AGE DISTRIBUTION BY SEX

Manteca 1980						
Age Group	Total	% of Total	Males	% of Total	Females	% of Total
0-4	2,391	9.6	1,214	10.0	1,177	9.2
5-17	5,869	23.5	2,944	24.3	2,925	22.8
18-29	5,376	21.6	2,519	20.8	2,857	22.3
30-64	9,205	36.9	4,556	37.6	4,649	36.3
65+	2,084	8.4	878	7.2	1,206	9.4
All ages	24,925		12,111		12,814	
Median Age	27.5		27.3		27.7	

Source: U.S. Census Bureau

TABLE III-5

AGE STRUCTURE Manteca 1960, 1970 and 1980

Year	Age Groups		
	0-17(%)	18-64(%)	65+(%)
1960	3,371 (40.8%)	4,269 (51.8%)	602 (7.4%)
1970	5,281 (38.0%)	7,540 (55.0%)	1,024 (7.0%)
1980	8,260 (33.0%)	14,581 (59.0%)	2,084 (8.0%)

Source: U.S. Bureau of the Census

TABLE III-6

AGE STRUCTURE BY PERCENTAGE
Manteca, San Joaquin County and California
1980

<u>Age Group</u>	<u>Manteca</u>	<u>San Joaquin County</u>	<u>California</u>
0-4	9.6	7.9	7.2
5-17	23.6	21.2	19.8
18-64	58.5	59.6	62.8
65+	8.4	11.3	10.2
Median Age	27.5	29.8	29.9

Source: U.S. Bureau of the Census

There appears to be a relationship between the rapid growth rate in Manteca and the younger population in the city. An influx of young families has been largely responsible for Manteca's rapid growth and, at the same time, has offset the natural aging of the general population.

Ethnic Composition

According to the 1980 Census, 88.7 percent of Manteca's population classified themselves as white (see Table III-7). This proportion was significantly larger than that for either the county or the state. Those identifying themselves as black accounted for only 0.5 percent of the population in Manteca, as compared to 5.5 percent in the county and 7.7 percent in California. In addition, the 'Asian' and 'Other' categories reflected significantly smaller proportions of the population than either the county or state. Table III-8 shows a comparison of the ethnic composition of Manteca, San Joaquin County, and California.

TABLE III-7

ETHNIC COMPOSITION BY PERCENTAGE
Manteca
1970 and 1980

<u>Ethnic Group</u>	<u>1970</u>	<u>1980</u>
White	97.5%	88.7%
Black	0.1%	0.5%
Asian	1.0%	3.2%
Other	1.4%	7.6%
Spanish Origin (White)		6.2%

Source: U.S. Bureau of the Census

TABLE III-8

ETHNIC COMPOSITION BY PERCENTAGE
Manteca, San Joaquin County and California
1980

<u>Ethnic Group</u>	<u>Manteca</u>	<u>San Joaquin County</u>	<u>California</u>
White	88.7	76.0	76.2
Black	0.5	5.5	7.6
Asian	3.2	6.7	6.2
Other	7.6	11.8	10.0
Spanish Origin (White)	6.2	7.7	9.6

Source: U.S. Bureau of the Census

Household and Family Composition

For purposes of the 1980 Census, a household was defined as all persons occupying a single housing unit as their usual place of residence. Between 1980 and 1987, according to the California Department of Finance, the number of households in Manteca increased by 3,751 and the average (mean) household size increased from 2.87 to 3.01. Table III-9 summarizes data on Manteca households for 1970, 1980, and 1987.

TABLE III-9

HOUSEHOLD COMPOSITION
Manteca
1970, 1980 and 1985

	<u>1970</u>	<u>1980</u>	<u>1987 (est.)</u>
Population In Households	13,698	24,656	36,835
Population In Group Quarters	<u>126</u>	<u>269</u>	<u>290</u>
Total Population	13,824	24,925	37,125
Number of Households	4,213	8,592	12,343
Persons Per Household	3.25	2.87	3.01

Sources: U.S. Bureau of the Census; California Department of Finance

According to the 1980 Census, a family was any household with two or more persons related to each other by blood, marriage, or adoption. Table III-10 shows 1980 family composition for Manteca and San Joaquin County. The table shows that Manteca had a significantly higher proportion of families and married couple families with children (under 18) than San Joaquin County as a whole.

TABLE III-10

FAMILY TYPE
Manteca and San Joaquin County
1980

	<u>Manteca</u>	<u>San Joaquin County</u>
Total Families	6,750 (100.0%)	90,918 (100.0%)
With children under 18	4,210 (62.4%)	50,125 (55.1%)
Without children	2,540 (37.6%)	40,793 (44.9%)
Married Couples	5,615 (100.0%)	74,023 (100.0%)
With children under 18	3,324 (59.2%)	38,145 (51.5%)
Without children under 18	2,291 (40.8%)	35,878 (48.5%)

Source: U.S. Bureau of the Census

Mobility

The 1980 census asked household members five years and older where they lived five years earlier (1975). As Table III-11 shows, Manteca had a significantly higher proportion of new residents than did the county, reflecting Manteca's rapid growth during the 1970s.

TABLE III-11

HOUSEHOLD RESIDENCE IN 1975
Manteca and San Joaquin County
1980

	<u>Manteca</u>	<u>San Joaquin County</u>
Same House	7,369 (32.7%)	148,863 (46.4%)
Different House, Same County	7,928 (35.2%)	102,106 (31.8%)
Different County, Same State	4,878 (21.6%)	46,590 (14.5%)
Different State	2,115 (9.4%)	14,672 (4.6%)
Abroad	262 (1.2%)	8,684 (2.7%)
	<u>22,552</u>	<u>320,915</u>

Source: U.S. Bureau of the Census

POPULATION PROJECTIONS

According to State Department of Finance (D.O.F.) projections, California is expected to grow to almost 33 million persons by the year 2000 and to nearly 40 million by the year 2020. Demographers expect that, after the Sierra Foothill counties, the Central Valley counties will be the fastest growing region of the state through the end of this century.

D.O.F. projections show San Joaquin County growing from 350,000 in 1980 to 482,850 by 1990, to 612,000 by 2000, and to 837,675 by 2020.

TABLE III-12
POPULATION PROJECTIONS
San Joaquin County and California

<u>Year</u>	<u>San Joaquin County</u>	<u>California</u>
1980	350,016	23,775,360
1985	416,704	26,365,077
1990	482,854	28,771,169
1995	550,573	30,955,714
2000	611,979	32,852,616
2020	837,674	39,618,536
Annual % Change	3.5%	1.7%

Sources: Population Projections for California Counties 1980-2020, California Department of Finance, December 1986

Past general plans have attempted to project population growth for Manteca with mixed results. The 1962 Manteca General Plan projected that Manteca would grow from 8,242 in 1960 to 30,000 by 1980, and to 42,000 by 1990. The 1975 Manteca General Plan was much more conservative, projecting that Manteca would grow to 23,180 by 1980 and 32,030 by 1995. The 1980 Manteca General Plan update projected a population of 31,713 by 1985, 38,448 by 1990, and 45,132 by 2000. Manteca had an actual population of 24,925 in 1980, according to the Census Bureau, and an estimated population of 32,545 in 1985, according to the California Department of Finance.

The San Joaquin County Council of Governments (SJCCOG), as part of the Fair Share Housing Allocation Plan (1986-1990), has projected population for each city as well as for the county through the year 1990. According to SJCCOG projections, Manteca is expected to grow at an average annual rate of four percent to 38,384 by 1990.

Population growth in any community is a combination of natural increase (i.e., births minus deaths) and net migrations (i.e., in-migration minus out-migration).

Manteca has earned its reputation as a family town by attracting and keeping young families with relatively high birth rates. At the same time, the elderly population in Manteca is quite low. The two facts have combined to produce a high rate of natural increase in Manteca, compared to other cities in the county and compared to the state. This high rate of natural increase will remain a significant factor in population growth for the foreseeable future.

Net migration is the second component of population growth. Three factors are primarily responsible for historically high rates of in-migration in Manteca: housing costs, job creation, and the attractiveness of small town living.

Maintaining the small town feeling which existing residents prize so highly will be difficult. But, assuming that this is possible, Manteca will continue to attract people from more urban areas looking for a more hospitable, slower-paced environment.

For most of the past 20 years, Manteca has served as a bedroom community for other employment centers. Population growth has far out-paced job creation. Because of its central location and convenient access to major metropolitan areas, however, Manteca has the potential for developing a much larger employment base. New jobs in primary industries and secondary services will mean major increases in population.

The third factor influencing population growth in Manteca is the cost of housing. Like a rising tide, development pressure has moved continually inland from the coast as the coastal land supply has been exhausted or land prices have become prohibitively high. In the last several years, the Tri-Valley area has become the focus of intense development. Communities in the Tri-Valley area (Pleasanton, Livermore, Dublin, Danville, San Ramon, and Alamo) will be transformed in the next 15 years from bedroom communities to large employment centers. It appears likely that housing production in these communities will not keep pace with job creation, driving up the cost of both existing and new housing. The Metropolitan Transportation Commission in a study of growth in the Interstate 680 and Interstate 580 corridors estimates that by 2005 approximately 38,000 households with employment in the Tri-Valley area will need housing costing \$125,000 or less.

Because of its relatively low housing prices and proximity to the Tri-Valley area (about 40 miles to the I-580 - I-680 intersection), Manteca can expect increasing pressure to provide housing for families of commuters to the Tri-Valley area and other Bay Area employment centers.

Reflecting these considerations, a 1985 study by SJCCOG sets out three scenarios of future growth for the planning areas and cities of Manteca, Tracy, and Ripon. The projections are based on three scenarios of rapid to slow growth rates, with the mid-range growth rate assumed to be the most realistic. Table III-13 shows the mid-range scenario for the cities and planning areas of Manteca, Tracy, and Ripon. Table III-14 shows the number of dwelling units that correspond with the projected population growth. Tables III-15 and III-16 show all three growth scenarios for Manteca and the Manteca Planning Area.

Table III-17 shows employment growth scenarios for Manteca, Tracy, and Ripon. It should be noted that the planning area used by SJCCOG for these projections is much larger than the Planning Area for the Manteca General Plan described elsewhere in this report (see Figure III-1).

TABLE III-13

POPULATION GROWTH PROJECTIONS*
Manteca, Tracy, and Ripon
1985-2010

	<u>1985</u> <u>Pop.</u>	<u>1986-1990</u> <u>% Growth</u>	<u>Pop.</u>	<u>1991-2000</u> <u>% Growth</u>	<u>Pop.</u>	<u>2001-2010</u> <u>% Growth</u>	<u>Pop.</u>
Manteca (City)	32,500	1% 1987 4% 1990	43,400	3.5%	63,000	2%	80,000
Planning Area	46,644	1% 1987 4% 1990	53,523	3.5%	74,499	2%	92,033
Tracy (City)	23,381	1.5%	33,200	3.5%	55,800	2%	69,700
Planning Area	30,906	1.5%	40,313	3.5%	62,701	2%	76,432
Ripon (City)	5,100	6%	8,100	4.5%	14,400	3%	21,600
Planning Area	8,295	6%	11,101	4.5%	17,239	3%	23,168

*Scenario B (mid-range) projections

Source: San Joaquin County Council of Governments, January 1986

TABLE III-14

DWELLING UNIT NEEDS PROJECTIONS¹
Manteca, Tracy, and Ripon
1985-2010

	<u>1985</u> <u>DUs</u>	<u>1986-1990</u> <u>DUs</u>	<u>1991-2000</u> <u>DUs</u>	<u>2001-2010</u> <u>DUs</u>
Manteca (City)	11,400	14,500	21,000	26,000
Planning Area	15,548	17,841	25,166	30,678
Tracy (City)	8,642	11,000 ²	18,600 ³	23,200
Planning Area	10,846	13,901 ²	21,621 ³	26,356
Ripon (City)	1,800	2,700	5,000	7,500
Planning Area	2,860	3,828	5,944	7,989

¹Scenario B (mid-range) projections.

²Thirty (30) percent buildout

³Remainder of buildout

Source: San Joaquin County Council of Governments, January 1986

TABLE III-15
MANTECA GROWTH SUMMARY
Planning Area
1985 through 2010

Scenario	1985			1986 to 1990			1991 to 2000			2001 to 2010		
	% Growth	Pop	DU's	% Growth	Pop	DU's	% Growth	Pop	DU's	% Growth	Pop	DU's
Original	Not Calculated			3.5	40,000	14,800	2.0	53,000	19,500	2.0	66,000	24,500
A	1.0	32,500	11,400	-- ¹	42,000	14,000	2.5	54,000	18,000	2.0	69,000	23,000
B	1.0	32,500	11,400	-- ²	43,400	14,500	3.5	63,000	21,000	2.0	80,000	26,000
C	1.0	32,500	11,400	-- ³	45,000	15,000	4.0	73,000	24,300	3.0	102,000	34,000

¹1.0 percent through 1987 and 3.0 percent through 1990.

²1.0 percent through 1987 and 4.0 percent through 1990.

³1.0 percent through 1987 and 5.0 percent through 1990.

Source: San Joaquin County Council of Governments, January 1986

TABLE III-16

MANTECA GROWTH SUMMARY
City Limits
1985 through 2010

Scenario	% Growth	1985		% Growth	1986 to 1990		% Growth	1991 to 2000		% Growth	2001 to 2010	
		Pop	DU's		Pop	DU's		Pop	DU's		Pop	DU's
Original		Not Calculated		3.5	53,388	18,497	2.0	65,985	24,496	2.0	79,372	31,776
A	1.0	46,644	15,548	-- ¹	51,994	17,331	2.5	66,556	22,185	2.0	81,132	27,044
B	1.0	46,644	15,548	-- ²	53,529	17,841	3.5	75,499	25,166	2.0	92,032	30,678
C	1.0	46,644	15,548	-- ³	55,082	18,361	4.0	81,534	27,178	2.0	109,575	36,525

¹1.0 percent through 1987 and 3.0 percent through 1990.

²1.0 percent through 1987 and 4.0 percent through 1990.

³1.0 percent through 1987 and 5.0 percent through 1990.

Source: San Joaquin County Council of Governments, January 1986

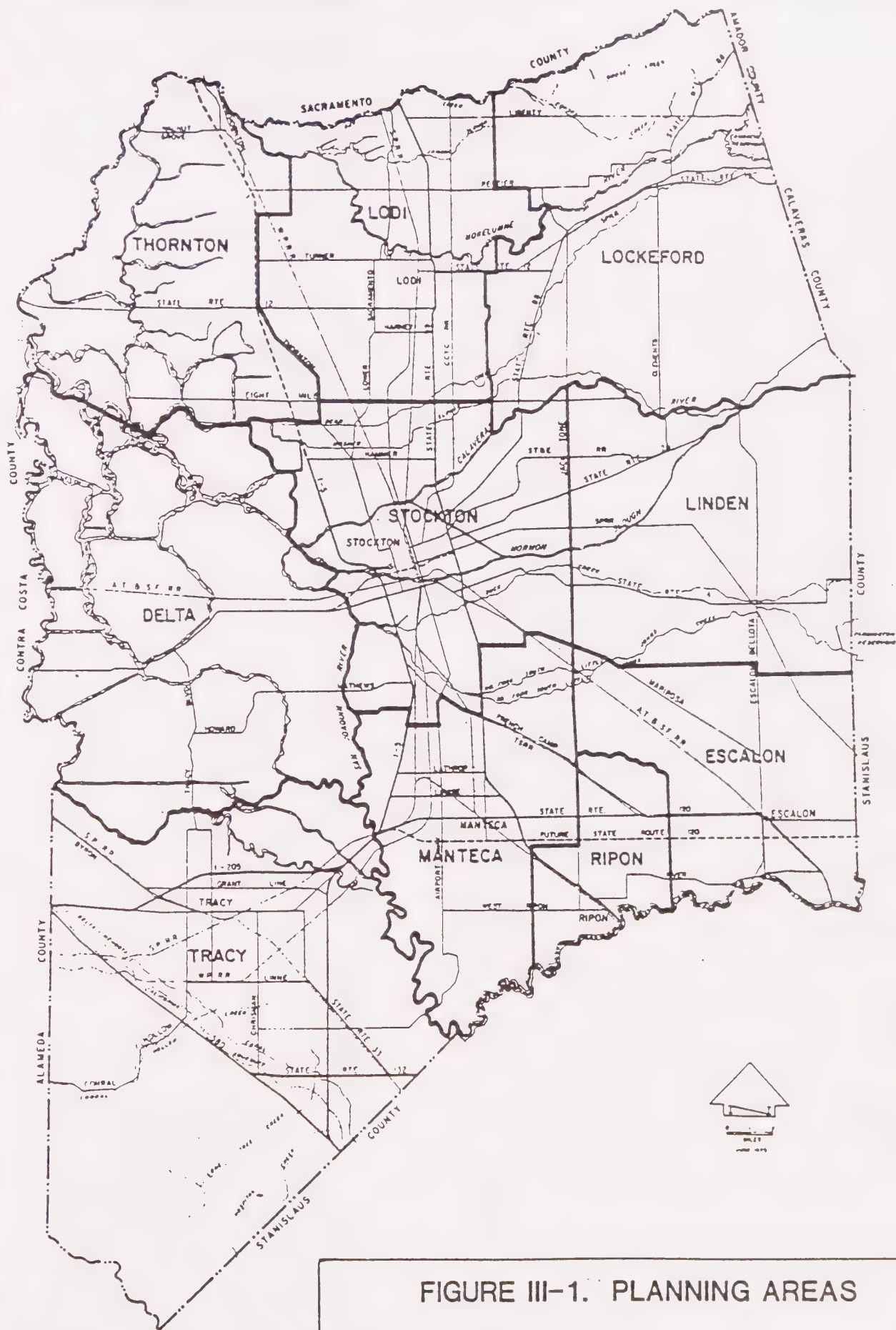


FIGURE III-1. PLANNING AREAS

Source: San Joaquin County Planning Department

TABLE III-17

EMPLOYMENT GROWTH PROJECTION*
Manteca, Tracy, and Ripon
1985-2010

Scenario	Year	New DU	Emp/DU OTH	Temp OTH	EMP/DU IA	Temp IA	Temp
A	1985	3,128	0.4	1,251	0.8	2,502	3,754
	1990	2,293	0.6	1,376	0.6	1,376	2,752
	2000	7,325	0.4	2,930	0.8	5,860	8,790
	2010	5,512	0.15	827	1.05	5,788	6,614
B	1985	1,553	0.5	777	0.7	1,087	1,864
	1990	3,055	0.8	2,444	0.4	1,222	3,666
	2000	7,720	0.5	3,860	0.7	5,404	9,264
	2010	4,735	0.25	1,184	0.95	4,498	5,682
C	1985	929	0.5	465	0.7	650	1,115
	1990	968	0.8	774	0.4	387	1,162
	2000	2,116	0.5	1,058	0.7	1,481	2,539
	2010	2,045	0.25	511	0.95	1,943	2,454

Footnotes: OTH = Over the Hill Employment
 EMP/DU = Employees Per Dwelling Unit
 IA = In Area Employment
 TEMP = Total Employment
 Assumes 1.2 employees per dwelling unit

Source: San Joaquin County Council of Governments, January 1986

FINDINGS

- o Manteca has historically been, and will likely continue to be, the fastest growing city in San Joaquin County. Projections by the San Joaquin County Council of Governments assume Manteca will continue to grow at about four percent per year.
- o Job creation in the Tri-Valley area will place increasing pressure on Manteca to provide housing for commuters. Population growth in Manteca will also largely result from local job creation.
- o Because County land use and growth policies support development within existing urban centers and because Manteca controls the area's key water and sewer systems, the City of Manteca has direct control over most of the future population growth within the Planning Area. The chief tools available to the City to control growth are its annexation powers, public service extension decisions, and zoning.
- o Compared with other cities in San Joaquin County and the state, Manteca has a disproportionately large share of young families. This trend will continue through the mid-term, although Manteca's age structure will eventually more closely approximate the state's. The predominance of young families is important to making decisions about the mix of housing and the provision of services such as recreation and medical services.

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GLOSSARY

Family - Two or more persons, including the householder, who are related by birth, marriage, or adoption, and who live together as one household

Household - The person or persons occupying a housing unit

Mean - The average of a range of numbers

Median - The mid-point in a range of numbers

CHAPTER IV. ECONOMIC CONDITIONS & FISCAL CONSIDERATIONS

CHAPTER IV

ECONOMIC CONDITIONS AND FISCAL CONSIDERATIONS

INTRODUCTION

Long-range city development plans must consider market factors and trends as well as fiscal capabilities of the city. This chapter reviews the general economic and employment characteristics of San Joaquin County and Manteca, discusses market factors and trends concerning the demand for commercial and industrial development in Manteca, and assesses the City's fiscal capacity to accommodate future development. Because only order-of-magnitude projections used to develop the General Plan are presented, the demand for any site-specific development cannot be determined without a more detailed market analysis.

ECONOMIC CONDITIONS

Economic and Employment Characteristics

Economic Base

Manteca's economy is based primarily on four industrial groups: services, manufacturing, retail trade, and government. This industrial composition is similar to the economic base of San Joaquin County, except that agriculture, forestry, and fisheries replace the government cornerstone of Manteca, as illustrated in Chart IV-1.

As indicated in Table IV-1, the most significant county growth in the last decade has been in the areas of goods manufacturing, construction, retail trade, services, finance, insurance, and real estate. Traditionally, agriculture has provided the economic base for San Joaquin County, and although this sector will continue to be important, the trade and services industries have become an even more important source of jobs. The trade and services sectors account for more than 50 percent of the jobs projected for 1985.

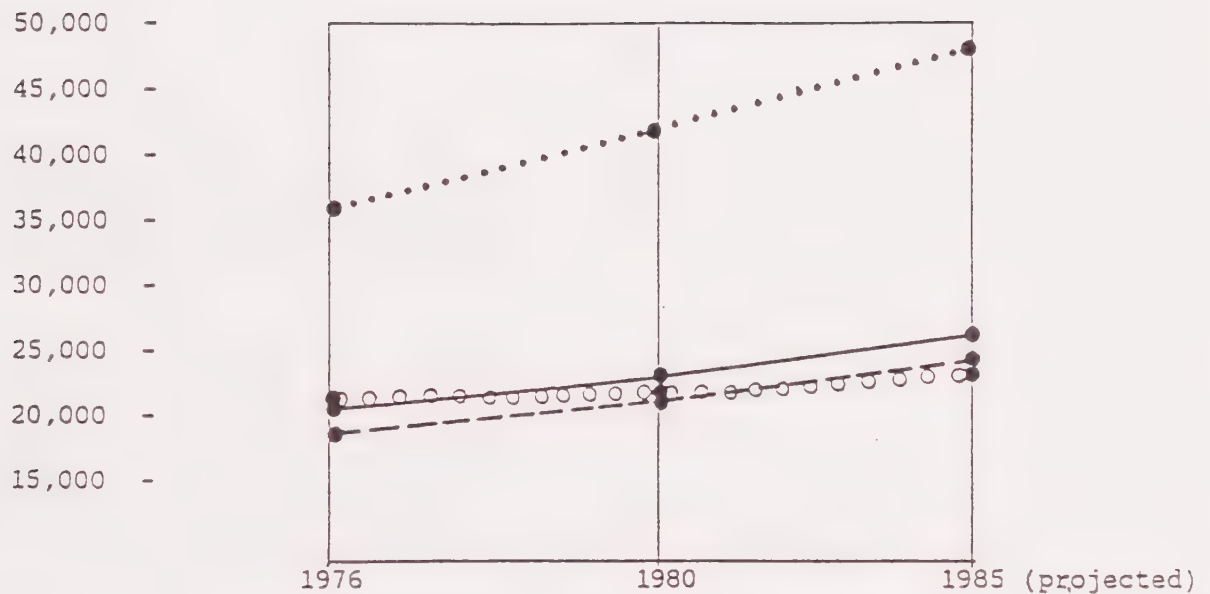
Employment

Overall, total wage and salary employment in San Joaquin County grew from 133,300 in 1976 to 165,600 in 1985, as shown in Table IV-2.

In Manteca the four largest employment categories by occupation are precision production craft and repair service workers (16.4 percent), administrative support/clerical staff workers (15.8 percent), service (except protective and household) (10.6 percent), and machine operators, assemblers, and inspectors (10 percent).

CHART IV-1

TOTAL WAGE AND SALARY EMPLOYMENT FOR THE FOUR LARGEST INDUSTRIAL GROUPS IN SAN JOAQUIN COUNTY 1976, 1980, and 1985 (projected)



Services

Manufacturing -----

Retail Trade _____

Agricultural, Forestry & Fisheries o o o o o o

Source: California Employment Development Department

TABLE IV-1

EMPLOYMENT AND GROWTH RATES BY INDUSTRY
Stockton SMSA
1976, 1980, and 1985

Industry*	Number of Employed Individuals		Projected 1985	Average Annual Growth Rate	
	1976	1980		1976-80(%)	1980-85(%)
Total, All Industries	133,300	147,300	165,600	2.6	2.5
Agriculture, Forestry, and Fisheries	21,000	21,000	22,500	0	1.4
Mining	100	100	100	0	0
Construction	6,000	8,000	9,400	8.3	3.5
Manufacturing	19,400	20,800	24,800	1.8	3.8
Nondurable Goods	12,000	11,600	12,700	-0.8	1.9
Food and Kindred Products	8,900	8,500	9,300	-1.1	1.9
Other Nondurable Goods	3,100	3,200	3,300	0.8	0.6
Durable Goods	7,500	9,200	12,100	5.7	6.3
Transportation, Communications, and Utilities	8,800	9,600	10,400	2.3	1.7
Transportation	5,700	6,100	6,700	1.8	2.0
Communication and Utilities	3,000	3,500	3,700	4.2	1.1
Trade	26,700	29,900	34,500	3.0	3.1
Wholesale Trade	6,000	6,800	7,900	3.3	3.2
Retail Trade	20,700	23,100	26,600	2.9	3.0
General Merchandise	3,000	3,200	3,600	1.7	2.5
Food and Dairy Stores	2,700	3,300	3,500	5.6	1.8
Auto Dealers, Gas Stations	3,200	3,200	3,400	0	1.3
Eating and Drinking Places	5,400	6,700	8,200	6.0	4.5
All Other Retail Trade	6,400	6,700	7,800	1.2	3.3
Finance, Insurance, Real Estate	4,700	5,600	6,500	4.8	3.2
Services	36,600	42,400	47,200	4.0	2.3
Medical, Other Health	10,200	12,200	14,100	4.9	3.1
Education	11,800	13,400	14,100	3.4	1.0
All Other Services	14,600	16,800	19,000	3.8	2.6
Public Administration	9,900	9,900	10,100	0.0	0.4
Federal Public Administration	5,000	4,900	5,000	-0.5%	0.4
State Public Administration	1,400	1,500	1,500	1.8	0.0
Local Public Administration	3,600	3,600	3,600	0.0	0.0

TABLE IV-2

EMPLOYMENT BY OCCUPATION, 1980
Manteca and San Joaquin County
1980

	<u>Manteca</u>		<u>San Joaquin County</u>	
	Number	Percent	Number	Percent
Executive Administrative, Managerial	858	8.8	12,179	9.0
Professional Specialty	736	7.5	13,605	10.0
Technicians and Related Support	224	2.3	2,974	2.2
Sales	817	8.3	13,848	10.2
Administrative Support/Clerical	1,546	15.8	23,387	17.2
Private Household	32	0.3	875	0.6
Protective Service	297	3.0	2,611	1.9
Service, Except Protective and Household	1,033	10.6	14,899	10.9
Farming, Forestry and Fishing	294	3.0	9,843	7.2
Precision Production, Craft and Repair Service	1,604	16.4	17,296	12.7
Machine Operators, Assemblers and Inspectors	976	10.0	9,264	6.8
Transportation and Material Moving	767	7.8	8,124	6.0
Handlers, Equipment Cleaners, Helpers and Laborers	602	6.2	7,233	5.3

Source: U. S. Bureau of the Census

Compared to San Joaquin County, Manteca shows larger proportions of workers in the categories of precision production craft and repair service, and machine operators, assemblers, and inspectors. However, Manteca lags behind the county in its proportion of workers in professional specialty occupations, sales, administrative support/clerical, and most notably in the farming, forestry, and fishing industry.

San Joaquin County, which has had consistently high unemployment in recent years, ranked sixteenth among California counties in unemployment in 1984. However, a substantial increase in employment in San Joaquin County occurred between 1983 and 1984, which resulted in the largest year-over decline in the county's unemployment rate in 11 years.

As indicated in Table IV-3, the average annual unemployment rate is expected to continue to decline during 1985 and 1986, but at a lesser rate than experienced in 1984. Total employment is forecast to climb slightly in 1985 and 1986. A general resurgence in the economy accounts for the projected trend of continued decline in unemployment. Additional employment information is provided in Tables IV-4, IV-5, and IV-6.

TABLE IV-3**1983-1984 ANNUAL AVERAGES AND 1985-1986 FORECAST FOR CIVILIAN
LABOR FORCE, EMPLOYED AND UNEMPLOYED, IN SAN JOAQUIN COUNTY**

	<u>Historical</u>		<u>Forecasts</u>	
	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Civilian Labor Force*	174,100	179,200	179,600	181,300
Employment	146,200	155,400	157,600	159,800
Unemployment	27,900	23,800	22,000	21,500
Unemployment rate	16.0	13.3	12.2	11.8

*Labor Force by place of residence

Source: California Employment Development Department

The unemployment rate is significantly affected by the seasonality of the county's basic industries. For example, the unemployment rate in February 1984 was almost twice the rate in August (18.6 percent compared to 9.5 percent). At least one sixth of the available labor force was without jobs during the first three months of 1984.

Until recently, Manteca was considered a bedroom community, with local employment supporting secondary occupations while most employed residents commuted elsewhere. The recent development of the industrial park on the City's southern edge has increased the number of local jobs. Between 1981 and 1985, approximately 3,000 new primary jobs have been developed in Manteca, an average of 600 jobs per year. Population growth as a result of the increasing number of primary jobs will generate an estimated 750 new secondary jobs.

**Economic Market Factors Affecting the Demand for Commercial and Industrial
Development in Manteca**

This section analyzes the market factors and trends that affect the demand for commercial and industrial development in Manteca and presents order-of-magnitude demand projections for the city over the next 20 years (1985-2005). The development potential of currently vacant and underutilized parcels in relationship to one another and to other competitive locations in the market area also is considered.

TABLE IV-4

CIVILIAN LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT ANNUAL AVERAGES
 San Joaquin County
 1974-1984

Year	Labor Force ¹	Employment ²	Unemployment ³	
			Number	Rate
1974	141,200	129,400	11,800	8.4
1975	145,200	129,600	15,600	10.7
1976	149,600	133,400	16,200	10.8
1977	155,800	138,700	17,100	11.0
1978	160,000	142,200	17,800	11.1
1979	164,300	148,100	16,200	9.9
1980	165,100	147,100	18,000	10.9
1981	172,100	150,900	21,200	12.3
1982	178,200	149,500	28,700	16.1
1983	174,200	146,200	27,900	16.0
1984	179,200	155,400	23,800	13.3

¹ Civilian labor force, employment, and unemployment by place of residence.

² Includes persons involved in labor-management trade disputes.

³ The number includes all persons without jobs who are actively seeking work.
 The employment rate is computed from unrounded data.

Source: Benchmark, March 1984

TABLE IV-5

CIVILIAN LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT BY MONTHS
 San Joaquin County
 1983 and 1984

Year	Month	Labor Force ¹	Employment ²	Unemployment ³	
				Number	Rate
1983	Jan	173,900	139,800	34,100	19.6
	Feb	172,000	136,900	35,100	20.4
	Mar	172,700	139,500	33,200	19.2
	Apr	170,900	142,100	28,800	16.8
	May	177,300	148,700	28,600	16.1
	Jun	182,200	152,000	30,200	16.6
	Jul	175,500	149,000	26,500	15.1
	Aug	177,400	152,600	24,800	14.0
	Sep	181,900	162,400	19,500	10.7
	Oct	171,600	150,100	21,500	12.5
	Nov	168,100	142,300	25,800	15.4
	Dec	165,900	139,100	26,800	16.2
1984	Jan	170,800	140,400	30,400	17.8
	Feb	169,700	138,200	31,500	18.6
	Mar	172,600	143,700	28,900	16.7
	Apr	173,600	149,000	24,600	14.2
	May	181,200	159,200	22,000	12.2
	Jun	186,200	164,000	22,200	11.9
	Jul	188,900	166,600	22,300	11.8
	Aug	188,500	170,600	17,900	9.5
	Sep	190,500	171,600	18,900	9.9
	Oct	184,300	164,800	19,500	10.6
	Nov	174,600	150,500	24,100	13.8
	Dec	169,300	146,100	23,200	13.7

¹ Civilian labor force, employment, and unemployment by place of residence.

² Includes persons involved in labor-management trade disputes.

³ The number includes all persons without jobs who are actively seeking work.
 The employment rate is computed from unrounded data.

Source: Benchmark, March 1984.

TABLE IV-6

MAJOR EMPLOYERS IN THE MANTECA AREA

Name of Company	Product	Employment
<u>Manteca</u>		
Amtex, Inc.	Carpeting for cars	NA
Bishop Industries	Marble vanity tops and panels	20
Carl's Jr. warehouse	Suppliers to Carl's Jr.	
	Restaurants	30
Celpril Industries, Inc.	Coated seeds	38
Dana Corporation	Auto parts distribution	41
Dekalb, Pfizer Genetics		
Ramsey Seed Division	Seeds	17
Double "A" Truss	Greenhouses	25
Eckert Cold Storage	Frozen foods	325 (peak of season)
Indy Electronics	Integrated circuit subcontract assembly	900
Madison Mobile		
Modular Homes	Mobile homes	18
Manteca Bean Company	Bean packaging	10
Motor Guard	Filtration equipment mfg.	11
Shinko Electric America	Electronics (electro-plating)	45
Uniphase	Helium neon laser used in supermarket checkout	27
Manteca Bulletin	Newspaper	86 (full and part-time)
Manteca News	Newspaper	30 (full and part-time)
Continental Telephone	Telephone services	222
Pacific Gas and Electric	Gas and electricity services	34
<u>Near Manteca</u> *		
E. R. Carpenter (Lathrop)	Urethane cushions	NA
Delicato Vineyards		
(Highway 99)	Table wines	85
Franzia Bros. Winery		
(Ripon)	Table wines	325
Kim-Truss (Lathrop)	Frame roof trusses	40
Libby Owens Ford		
(Lathrop)	Flat glass manufacturing	55 (monthly) 314 (hourly)
Moorman's Manufacturing		
(French Camp)	Feed supplements	33
Simplot (Lathrop)	Fertilizers and chemicals	180
Spreckels Sugar Amstar		
(outside Manteca City limits)	Sugar	286 (peak season)
Sharpe Army Depot		
(Lathrop)	Military installation	1,400 (civilian) 45 (military)

*Additional employment is provided in the City of Tracy by the Tracy Defense Depot, and some manufacturing distribution centers.

Source: Manteca District Chamber of Commerce, January 1986.

Retail and Office Development

Historical and Current Demand for Commercial Space

The Manteca area has experienced substantial growth pressures during recent years. Census data from 1980 indicate an estimated Manteca population at 24,925, which represents an 80 percent increase in population since 1970. In comparison, the population of San Joaquin County grew by 19.3 percent from 1970 to 1980. Manteca's population is currently estimated at 32,545 (California State Department of Finance), which represents a 30 percent increase since 1980.

Manteca's reputation of having a desirable living environment is in part responsible for the recent growth. According to the 1980 Census, approximately 65 percent of Manteca's workforce worked outside of Manteca. By comparison, only 38 percent of those who lived in incorporated areas in the county with populations greater than 2,500 worked outside of their area of residence. Many members of Manteca's workforce commute to jobs in nearby communities such as Stockton, Tracy, Modesto, and Lathrop. Some of the workforce, however, commute to jobs as far away as Sacramento and the East Bay area.

Manteca's residential-based economy provides a strong demand for convenience, retail goods, financial, and health services. Convenience goods include items purchased regularly, such as grocery and drugstore goods. Because these goods are purchased relatively often, most purchases will be made in the community of residence.

Prior to 1970, Manteca's retail activity was centered in the downtown core area. The commercial strip along Main street is composed of one- and two-story brick buildings, with commercial space downstairs, and often office or residential space upstairs. This small, downtown commercial area serviced Manteca's relatively small urban population and provided central retail services for the outlying agricultural areas. Since 1970 the focus of retail activity has shifted away from the downtown area. This change is, in part, due to residential development that has occurred away from the downtown area, leading to the development of more localized shopping areas. The downtown retail area has had difficulty competing with new local and regional shopping centers. Other factors, such as the lack of accessible downtown parking, and inconvenient and congested traffic routes have decreased the use of downtown retail services. Because of this decline, vacancy and turnover rates in the downtown area have been high in recent years. Attempts to revitalize the area, have been largely cosmetic, and, for the most part, unsuccessful.

Most of the commercial development since 1970 has occurred along North Main Street and along Yosemite Avenue between Main Street and Highway 99. The rate of commercial development in the North Main Street area has approximated Manteca's residential growth. The development in this area has featured large shopping centers which include large drugstores, super-markets, auto parts stores, and fast-food establishments. The development along Yosemite Avenue is concentrated at the Highway 99 interchange and provides restaurant, motel, and gas station services to highway users. This area also includes a large shopping center that contains a large grocery store, a discount general merchandise store, liquor store, and other small shops. An auto dealership also is located nearby. The commercial develop-

ment along Yosemite Avenue between Main Street and Highway 99 is mixed, consisting of a variety of commercial uses. Other small, localized shopping centers are located in Manteca, including a shopping center at Yosemite Avenue and Union which contains a drugstore and a couple of general merchandise discount stores.

As mentioned previously, Manteca's retail sector is composed mainly of stores offering convenience goods. These stores include grocery stores, drug-stores and general discount stores. Manteca's commuter-based population provides a healthy market for these types of stores. Because convenience goods are purchased relatively often, most shoppers are unwilling to travel far for convenience goods and, consequently, place a premium on their availability near home. The next closest location for convenience purchases would be Stockton. Stockton is located 12 miles north of Manteca and is probably too far away to compete for most convenience purchases. However, those Manteca residents who commute to Stockton for work may do some of their convenience shopping there. The market area for Manteca stores offering convenience goods probably includes Manteca, Lathrop (2 miles to the west), and outlying rural areas within 6-10 miles of Manteca.

The market area for eating and drinking places within Manteca is probably of a similar size but varies by the type of establishment. Many restaurants attract customers from a wide area, whereas many bars are patronized by mostly local residents. Manteca currently offers almost 50 eating establishments (Manteca District Chamber of Commerce). Almost all of these eating establishments are located along Yosemite Avenue or North Main Street. Almost half of these establishments consist of fast-food restaurants, pizza houses, and delicatessens. Most of the remaining restaurants consist of coffee shops and small cafes. From this breakdown, it appears that eating establishments in Manteca are only capturing part of the dining and drinking market. Establishments in Manteca are servicing the demand for fast-food and informal breakfast and dinner dining. The demand for a more formal dining and drinking atmosphere is probably being in part met by establishments in Stockton, Sacramento, and the East Bay Area, where formal dining is often done in conjunction with other social and cultural events such as live theater, concerts, and dancing. At this point, Manteca cannot compete with the larger urban areas that offer a wider variety of cultural and social activities; consequently, much of the demand for formal drinking and dining services is not captured locally.

Another important component of the retail goods market consists of the demand for comparison goods. Stores offering comparison goods include department stores, apparel stores, home furnishing and appliance stores, jewelry stores, sporting goods stores, photo and music stores, and other specialty stores. Comparison goods are not purchased as frequently as convenience goods and are typically more expensive. Their higher unit cost encourages shoppers to compare the goods offered at several stores. In the case of Manteca, this market would almost certainly extend to Stockton, Modesto, Sacramento, and the Bay Area. While Manteca has a number of stores that carry comparison goods, these other urbanized areas offer a greater variety and selection and are likely to be much more price competitive. It can therefore be assumed that Manteca's current share of comparison goods purchases is relatively small.

Other miscellaneous retail stores include lumber and building materials stores, auto dealers and auto supply stores, and service stations. These stores typically draw their customers from a relatively large area. Manteca's share of this market is probably limited, but would be dependent on the type of goods being purchased. Manteca stores offer these goods in limited variety and quantity.

Manteca has historically experienced very little visitor-related retail activity. The city is not known as a tourist center and only has two motels with 85 total rooms. Most visitor stays are generated by Highway 99 and are likely to be only one-night stays. Oakwood Lake Resort, located near Manteca, brings some traffic through Manteca during the summer. Visitor-related sales are probably very small and consist mainly of fast-food and gasoline purchases.

Retail sales growth in Manteca has been strong over the last 15 years, reflecting the fast growth of the City's population. Taxable retail sales in Manteca were estimated to be \$199 million during 1985 (see Table IV-7). This figure does not include nontaxable retail sales such as the sale of food for home consumption and the sale of prescription medicine. The sale of nontaxable items could increase total retail sales by 10 to 20 percent.

Taxable retail sales within Manteca since 1960 are presented in Table IV-7. The sales figures have been adjusted for inflation, and are in 1985 dollars.

TABLE IV-7
TAXABLE RETAIL SALES IN MANTECA
1985 DOLLARS

<u>Year</u>	<u>Taxable Retail Sales</u>	<u>Percent Increase</u>	<u>Per Capita Sales</u>
1960	\$37,416,000 ¹	--	\$4,540
1970	67,942,000 ¹	82%	4,907
1980	143,195,000 ¹	211%	6,186
1985	198,677,000 ²	39%	6,105

¹ California State Board of Equalization

² Estimated using sales tax revenue received by Manteca during the 1984-85 fiscal year

³ Determined using California State Department of Finance population estimate

Total taxable sales in Manteca's retail establishments grew by 211 percent from 1970 to 1980. This increase reflects not only an 80 percent population jump during that time period, but also a change to a commuter-based population with a higher average income. Since 1980 taxable retail sales have grown by 39 percent. The increase closely follows the growth rate of Manteca's population, which has been about 30 percent during that time period.

Prospects for Future Demand and Commercial Development

Manteca is expected to grow at a brisk rate over the next 20 years.

Manteca's current population is estimated at 34,000. Manteca's population is expected to grow to over 38,500 by 1990, and to over 50,000 by 2000, according to the City of Manteca. By the year 2005, Manteca's population could be nearing 60,000. This population growth should maintain a strong demand for retail and commercial services.

Manteca's grocery, drug, and general discount stores attract a large share of the spending of the residents of the market area. The recent retail developments along North Main Street have strengthened the market area dominance of Manteca stores offering convenience food.

Increase in sales of convenience goods in Manteca will depend primarily on residential growth within the city and the immediate surrounding areas. Based on the projected growth of Manteca's population, the demand for convenience goods could increase by 20 percent by 1990, and by 50 percent by the year 2005. For Manteca to maintain its market share of convenience goods sales, the number of stores offering these goods must increase at a similar rate. The greatest potential for increased demand for convenience goods will most likely come from areas within the city that are experiencing new residential development.

The demand for eating and drinking establishments will also tend to grow as the population increases. As mentioned previously, Manteca probably captures a large share of the market for fast foods and informal dining, but loses much of the market for formal dining to the larger cities in the area. The increased demand for dining services should attract a greater variety of dining and drinking establishments.

Even with more dining opportunities, it will be difficult for Manteca's more formal eating and drinking places to capture an increased share of the growing spending potential of the market area. Restaurants in Stockton, Sacramento, and the Bay Area will continue to attract the spending of local residents. It is likely that the demand for both informal and formal dining and drinking places in Manteca will increase; however, the rate may be slower than the population growth rate.

The outlook for comparison goods sales in Manteca appears to be fair. As the name implies, comparison goods need to be available in quantity, quality, and variety for an area to capture a large share of the market for these goods. Large stores offering goods such as clothing, home furnishings, appliances, and sporting goods tend to locate in large population areas. As Manteca grows, its demand for comparison goods will attract stores offering these goods.

A major department store recently expressed interest in opening a store in Manteca. However, store representatives concluded that Manteca was too small to generate the sales volume it wanted and indicated that they would be interested when the population approached 50,000. This assessment appears to be fairly representative of Manteca's ability to capture a significant amount of the dollars spent on comparison goods. During the next five to ten years, Manteca will probably continue to lose local comparison goods spending to Stockton, Sacramento, and the East Bay area.

However, as the population approaches the 50,000 level, stores will probably move into Manteca and its market share will increase.

Based on population estimates and historic spending levels, an order-of-magnitude forecast of future sales growth was prepared. This forecast can be used to roughly approximate the demand for additional local retail sales in Manteca over the next 15-20 years.

Manteca's taxable per capita sales (in current dollars) increased significantly during the 1970s as the demographics of the city changed. Since 1980, taxable per capita sales have stabilized at approximately \$6,100 (see Table IV-7). The demographics of the city also appear to have stabilized, making per capita sales a useful figure for estimating future retail sales. Based on projected population estimates, taxable retail sales in 1990 should approach \$235 million in 1985 dollars; this would represent an increase of almost 20 percent over current spending levels. By the year 2005, taxable retail sales may reach \$305 million in current dollars, or a 53 percent increase over current sales.

These forecasted sales figures are probably conservative because they are largely based on projected population growth rates that are much lower than what Manteca has experienced over the last 15 years. The forecasts also do not include any real growth in gross and disposable income. As the population of Manteca approaches 50,000 (which is projected to occur in approximately the year 2000) retail sales should increase because Manteca will likely be capturing a much larger share of the market for comparison goods as stores move into the area. The forecasted sales figures estimated here should be considered the minimum amount of growth to be expected.

Considerations for Future Commercial Land Use Policy

Existing land use by type of zoning in Manteca is presented in Table IV-8. The estimated amounts of square footage presented were derived by converting acreage to useful square footage, using an estimated floor space coverage ratio of 0.4 to 1.0.

TABLE IV-8

MANTECA EXISTING COMMERCIAL LAND USE 1985

<u>Type of Zoning</u>	<u>Potential Floor Space</u>	<u>Developed</u>	<u>Vacant</u>	<u>Developed and Under- utilized</u>
Office Commercial	648,200	391,500	247,900	8,700
Neighborhood Commercial	416,400	278,300	95,300	42,900
Community Commercial	5,042,500	3,582,700	1,356,600	103,100
Highway Commercial	2,739,000	1,696,200	700,800	342,000
General Commercial	2,197,200	591,700	1,024,400	581,100

Source: Mintier & Associates, 1986

Office commercial zoning is reserved for medical, clinical, administrative, professional, and financial office usage. Neighborhood commercial zones are designated for retail and service uses to supply the daily needs of neighborhood residents, but not to permit commercial centers that attract traffic from outside the neighborhood. Community commercial districts are intended for retail and commercial establishments that can provide services for residents of the City as a whole. Highway commercial districts provide for retail and commercial uses that are dependent upon highway travel. General commercial districts provide for wholesale, warehousing, and heavy commercial uses not suitable for other commercial districts.

Based on current taxable sales shown in Table IV-7 and estimates of existing development in the neighborhood, community and highway commercial zones shown in Table IV-8, Manteca has an average sales volume of \$35.75 per square foot. This is likely to be low since these zones contain some office usage, and the retail sales figures exclude nontaxable sales. However, this average figure can help to determine order-of-magnitude estimates for future demand for retail commercial space.

It was estimated previously that retail sales will increase by a minimum of \$106 million by the year 2005. This implies that 2,965,035 square feet of additional retail space will be needed by the year 2005. It is unlikely, however, that the projected growth in retail sales would generate this amount of new retail space for several reasons.

First, much of the future sales growth could be absorbed by existing merchants or existing occupied space. The potential exists for higher sales volumes in existing occupied space, either as existing retailers attract more customers and improve their merchandising, or as more successful stores replace marginal businesses.

Secondly, a large amount of vacant and underutilized commercial land currently exists in Manteca. In the neighborhood, community, and highway commercial zones, there is currently 2,640,700 square feet of potential vacant or underutilized space, according to Table IV-8. This space would accommodate almost 90 percent of the estimated future demand for commercial retail space. Whether this vacant and underutilized commercial land will be used to accommodate future growth is dependent on the type and locational characteristics of future demand for retail and commercial services. Given existing highway development and the slow growth expected in the area of visitor-related economic activity, it is doubtful that there will be a significant demand for highway commercial space. The greatest demand is expected to be for community and neighborhood commercial space. The former requires a large number of contiguous parcels, and the latter requires space in specific locations. Significant new commercial development will probably be required to accommodate projected residential growth.

It is difficult to determine the demand for future office space. There is currently 391,000 square feet of developed office space, and a potential for 256,000 square feet more, based on vacant or under-utilized land zoned for office development, as shown in Table IV-8. During the last five years, 113,500 square feet of office space has been approved for construction, according to estimates by Mintier & Associates based on City building permit records. This suggests a growing demand for office space. However, with the exception of one large medical office complex, most of the approvals have been for moderate size (2,000 to 5,000 square feet) office buildings.

The large amount of vacant or under-utilized commercial office land suggests that much of the demand for new office space can be met by land currently zoned for office development. Population-induced demand for medical and financial services will require new development in specific locations within the city.

Industrial Development

Historical and Current Demand for Industrial Space

Until recently, Manteca has experienced little industrial activity within its city limits. The industrial activity that did exist was related to food processing and packaging and seed production. Major industrial plants are located close to Manteca, with manufacturing in Lathrop and the Spreckels Sugar Refinery on the outskirts of Manteca.

The lack of demand for industrial space in Manteca in the past was probably due to Manteca's inability to compete with other nearby industrial locations. Prior to Manteca's population boom in the 1970s, Manteca has had a relatively small labor force. In addition, it has no distinct natural resource base with which to generate specific industrial activity. The food processing and packaging plants probably located in Manteca because of its proximity to agriculture. Nearby areas such as Stockton, Sacramento, and the East Bay Area, however, are better able to supply the labor force, water, power, sewer, and transportation services needed to attract industrial and manufacturing activity.

Until recently, Manteca has had little need to actively pursue industrial development. Its population was small and its economy was based on providing housing and consumer services to those working in agriculture and in nearby manufacturing. Manteca's recent surge in population, and subsequent strain on City services and revenues, has caused the City to take a more active role in pursuing industrial development.

As a result, an industrial park was designated in the southeastern part of the city between Moffat Boulevard and the 120 By-pass. About 110 acres have been developed to date with another 155 acres designated for industrial development (Mintier & Associates, 1986); an additional 90 acres are zoned for manufacturing usage. These acres are generally spread along the railroad tracks and Moffat Boulevard.

Industry currently located in the industrial park is basically composed of light manufacturing and warehouse-type distribution facilities. The larger companies include Indy Electronics (integrated circuit subcontract assembly), Shinko Electric America (Electronics, electro-plating), Dana Corporation (auto parts distribution center), and Karcher Industries (suppliers to Carl's Jr. Restaurants) (Manteca District Chamber of Commerce).

Prospects for Future Demand for Industrial Space

To maintain the reputation as a bedroom community means that future industrial development in Manteca must be compatible with the residential and commercial uses of the city. Heavy manufacturing or industrial activity that results in odor, noise, air pollution, or dust would not be compatible. Future development must continue to be of the type currently locating in the industrial park, including warehousing and light manufacturing.

Manteca's industrial park zoning is designated for industrial development that is clean and quiet, with open space, and high quality design standards. Permitted uses include research facilities, laboratories, manufacturing, assembly or packaging of product (excluding manufacturing uses involving primary production of wood, metal, or chemical products from raw materials), electronics manufacturing, printing, or warehousing.

Because Manteca is selective about the type of permitted industrial development, potential demand for industrial space is limited. The amount of industrial demand that Manteca can expect, especially with respect to competitive locations, is a major issue. Other locations that offer strong competition for warehousing and light manufacturing include the Santa Clara Valley, the San Francisco Bay Area, the Sacramento area, and Stockton.

These areas all have distinct advantages because of their size and location. All have large labor markets and are close to major business centers. In addition, these areas have very good access to waterway and overland transportation routes. Historically, the Santa Clara Valley has been the regional center for light manufacturing, especially in the field of high-tech electronics. Recently, rising labor and land costs have prompted new and existing light manufacturing firms to locate elsewhere. Communities throughout northern California have been very aggressive in their pursuit of these "clean" industries, offering good industrial sites and tax and development fee incentives. Communities in the Sacramento area have been particularly successful in attracting light industrial development. For Manteca to compete in the market for light industry it must not only continue to make good industrial sites available, but must also offer financial incentives. Manteca could be attractive to firms that desire both a rural environment and proximity to urban conveniences and amenities.

The market for warehousing and distribution facilities has been dominated by Oakland, Stockton, and Sacramento, all of which have port and rail facilities. Stockton, in particular, has designated considerable land for warehouse facilities. Manteca will find it difficult to compete with Stockton for major warehouse facilities, but may be attractive as the location for distribution centers for companies with stores in the San Joaquin Valley. Manteca does have good access to major truck transportation routes, including Highway 99 and State Route 120.

Because of the competitive edge that other regional cities have in attracting industrial development, it is doubtful that Manteca will experience rapid growth in its industrial sector. However, as Manteca's population and labor force grow, and its business sector develops, it should continue its moderate growth in light industrial development.

Considerations for Future Industrial Land Use Policy

Existing and potential floor space, and land zoned for industrial and manufacturing use, is presented in Table IV-9. Square footage figures were derived by converting zoned acreage to useful square footage, using an estimated average lot coverage ratio of 0.4 to 1.0.

TABLE IV-9

MANTECA EXISTING LAND USE
1985

<u>Type of Zoning</u>	<u>Potential Total Floorspace</u>	<u>Developed</u>	<u>Vacant</u>	<u>Developed and Under- utilized</u>
Industrial Park	4,572,100	1,862,800	2,709,300	-0-
Manufacturing	1,552,500	1,369,900	130,300	52,300

Source: Mintier & Associates, 1986

The restrictions on industrial park usage were discussed previously. Manufacturing zoning permits any manufacturing, processing, assembling, research, wholesale or storage use. Conditions are placed on usage to exclude any activity that creates a disturbance or hazard to nearby residential or commercial areas. These conditions effectively exclude heavy industrial use.

Most of Manteca's manufacturing district is located along the railroad tracks and consists of older development. There currently exists approximately 180,000 square feet of vacant or under-utilized floor space for manufacturing district development. (See Table IV-9.) Because of Manteca's residential environment and desire to attract light, clean industrial development, it is likely that any new manufacturing development would be of the type that could locate in the industrial park district. Therefore, the zoning of any new land for manufacturing should be a low priority.

The industrial park district is currently being developed; 110 of the 260 acres zoned for industrial development have so far been developed (J. Laurence Mintier & Associates 1986). The undeveloped industrial park land could potentially produce 2,709,300 square feet of floor space. During the last five years, approximately 240,000 square feet of new industrial building permits have been issued (Mintier & Associates, 1986, based on City building permit records). The permitted uses include a 70,000 square-foot distribution center, a 20,000-square-foot building for electronics manufacturing, and a 62,000-square-foot warehouse building.

The industrial park is still in its early stage of development. In 1981, approximately 3,200 square feet of industrial park building permits were issued. In 1984 and 1985 (through October 31), approximately 74,000 and 70,000 square feet of building permits were issued, respectively. While the demand seems to be growing for industrial space, it also seems to have slowed over the last couple of years, settling at about 70,000 to 80,000 square feet a year. If this demand grew to 100,000 square feet of new development a year, it would require approximately 27 years to develop the land currently zoned for industrial activity.

This analysis indicates that additional industrially-zoned land may not be needed between now and the year 2005. If additional industrially-zoned acreage is needed, however, land currently located outside of Manteca's city

limits, both adjoining and east of the industrial park district, could be annexed and reserved for industrial development. The proximity of this land to the Spreckels Sugar Company Plant and existing industrial development makes the land inappropriate for residential or commercial development.

FISCAL CONSIDERATIONS

The City of Manteca provides a variety of services to local residents and businesses. These services include police and fire protection, water and sewer service, refuse collection (within the limits), parks and recreation, and street maintenance. The City owns and operates a major water system, a sewage collection and treatment system, a community arts building, and a golf course. Taxi service is also subsidized by the City.

To finance these services, the City budget includes general funds and items classified as "other funds." Revenues and expenditures related to these two budget categories are discussed in the following sections.

Revenues

The City of Manteca receives revenues from general funds and from "other funds." The sources of each of these categories, along with dollar estimates and percent of total revenue from each source, are provided in Table IV-10. The estimates presented are from the 1985-86 budget. Total revenues for this period are projected to be \$16,975,715.

General Fund Revenues

General fund revenues are expected to provide 37 percent of Manteca's total revenues for the 1985-86 budget year. Property tax revenues account for approximately 21 percent of the general fund revenues. This estimated level of revenue represents a five percent growth rate in property tax revenues over the last fiscal year's revenues. The City of Manteca receives approximately 23 cents of every dollar in property tax paid. The remainder goes to San Joaquin County and other taxing agencies.

Other taxes, including the sales and use tax, franchise tax, cigarette tax, hotel/motel tax, and documentary stamp tax, provide 37 percent of the general fund revenues. The sales tax provides \$1,953,700 of the \$2,297,390 estimated to be generated by the taxes in this category. The City currently receives one percent of sales and use taxes on retail sales and other taxable transactions within the city.

The other major revenue category included in the general fund is comprised of the charges for current services. This includes zoning and subdivision interdepartmental charges, as well as filing fees, and represents 22 percent of general fund revenues. These charges and fees were established by the City to offset the administrative and operational costs associated with providing the services involved.

The remaining 20 percent of general fund revenues come from a number of sources. These include license and permit fees (business, building, electrical, etc.), and revenue from other agencies (motor vehicle, off-highway vehicle, and trailer coach fees).

A listing of general revenues, by source, over the last 10 fiscal years is presented in Table IV-11.

TABLE IV-10

CITY OF MANTECA SUMMARY OF REVENUES BY SOURCE
FY 85/86

	<u>Amount</u>	<u>Percent</u>
<u>General Fund Revenues</u>		
Property taxes	1,284,330	8
Other taxes	2,297,390	13
Licenses and permits	304,200	2
Fines and forfeitures	23,000	
Use of money and property	80,000	1
Revenue from other agencies	736,615	4
Charges for current services	1,315,550	8
Other revenues	<u>181,500</u>	<u>1</u>
General fund total	6,222,585	37
<u>Other Fund Revenues</u>		
Parks fee improvement	170,000	1
Storm drain improvement	165,000	1
Sewer M&O	1,069,000	
Traffic safety	65,000	6
Golf course fund	294,100	2
Refuse service fund	1,375,500	8
Water fund	830,000	
Water fee improvement	140,000	6
Parking fund	6,500	
Gas tax	388,220	2
Sewer fee improvements	4,297,000	25
LTF - SB 325	582,250	3
Special apportionment, streets, etc.	776,500	4
Subsidized taxicab - transportation	97,500	
Industrial Park	5,000	1
West Edison Improvement District	2,100	
1970 Sewer Bond	66,000	
Revenue sharing	70,000	
SIR insurance	15,000	2
Vehicle maintenance fund	15,000	
Equipment replacement fund	10,000	

TABLE IV-10 (Continued)

	<u>Amount</u>	<u>Percent</u>
Career criminal apprehension	95,460	
Community Development Block Grant	<u>218,000</u>	<u>2</u>
Other funds total	10,753,130	63
Grand Total Revenues	16,975,715	

Source: City of Manteca

TABLE IV-11

City of Manteca General Revenue by Source
FY 76-77 to FY 85-86

<u>Revenues</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>	<u>1979-80</u>	<u>1980-81</u>	<u>1981-82</u>	<u>1982-83</u>	<u>1983-84</u>	<u>1984-85</u>	<u>1985-86</u>
Property taxes	709,791	900,226	604,893	600,430	867,672	962,717	1,029,665	1,185,587	1,229,689	1,284,330
Other taxes	847,444	1,074,999	1,334,835	1,379,430	1,478,243	1,573,031	1,636,436	2,023,441	2,326,567	2,297,390
Licenses & permits	147,018	226,333	226,873	171,067	189,063	146,212	302,828	587,893	341,583	304,200
Fines & forfeitures	11,300	9,254	17,850	22,626	26,869	21,883	21,302	28,691	22,846	23,000
Use of money and properties	20,964	20,239	14,008	--	12,211	29,323	0	5,048	92,725	80,000
Revenue from other agencies	223,747	271,011	321,910	411,530	450,771	352,836	235,631	253,684	693,813	736,615
Charges for current services	191,150	175,177	197,602	213,461	394,625	408,268	396,056	489,602	1,323,754	1,315,550
Other revenue	<u>50,207</u>	<u>183,231</u>	<u>284,910</u>	<u>218,531</u>	<u>321,491</u>	<u>145,818</u>	<u>120,096</u>	<u>169,309</u>	<u>152,309</u>	<u>181,500</u>
Total Revenue	2,201,621	2,860,470	3,002,881	3,017,075	3,740,945	3,640,008	3,742,014	4,743,255	6,183,286	6,222,585

Source: City of Manteca

"Other Funds" Revenues

Revenues from "other funds" are expected to provide 63 percent of Manteca's total revenues for the 1985-86 fiscal year. Almost 40 percent of this revenue will come from sewer improvement fees. This revenue category includes the proceeds from the sale of City bonds for the construction of a future wastewater treatment plant expansion.

The refuse service fund provides 13 percent of the "other funds" revenues. Manteca provides a refuse collection system to residential users for a cost of \$8.50 per month.

The sewer maintenance and operation fund provides 10 percent of the expected revenues from "other funds." These revenues are generated by sewer user fees.

The remaining 37 percent of revenues from "other funds" is spread among a number of funds and revenue-generating sources. Included are revenues from the water fund, and from LTF-SB 325, the state gas tax. Table IV-10 provides a listing of "other funds" sources and revenues.

Expenditures

City expenditures are also categorized as either general fund expenditures or other fund expenditures. In fiscal year 1985-86, total City expenditures are projected to be \$18,924,915. The detailed expenditures of the current year are presented in Table IV-12. Additional information about expenditures and potential revenues appears in Tables IV-13, IV-14, and IV-15.

General Fund Expenditures

Manteca's general fund supports the expenditures for many City service functions. These consist of general government (overall City management and administration), public safety (police and fire protection), public works (street building and vehicle maintenance, as well as animal and rabies control), and parks and recreation.

The City spends the largest portion of its general fund revenue for public safety. In the current fiscal year (FY 85/86), Manteca will spend nearly 55 percent of general fund revenues on law enforcement and fire protection. The police department alone accounts for one-third of the total general fund expenditures. Public works expenditures comprise the second largest portion of general fund expenditures, accounting for roughly 20 percent of the total general fund revenues.

"Other Fund" Expenditures

Manteca's "other funds" category primarily includes those activities that are self supporting. The expenditures for parks, storm drains, sewer maintenance, operation planned growth, refuse services, and water projects closely follow the revenue for the budget items. Sewer fee improvement represents the single largest expenditure category, accounting for 25 percent of total expenditures and 50 percent of "other funds" expenditures.

TABLE IV-12

CITY OF MANTECA SUMMARY OF EXPENDITURES
FY 85/86

<u>General Fund Expenditures</u>	<u>Amount</u>	<u>Percent</u>
<u>General Government</u>		
Mayor and City Council	104,570	
City management	168,680	
Administration Safety Committee	1,000	
Finance	239,710	4
Treasurer	11,150	
Legal	65,780	
Planning	232,185	
Nondepartmental	186,600	
Library	50,450	1
<u>Public Safety</u>		
Law enforcement	2,163,940	
Fire prevention	1,321,055	19
<u>Public Works</u>		
Animal and rabies control	87,915	
Engineering	314,110	
Street maintenance	420,245	
Vehicle maintenance	145,070	
Building regulation and inspection	229,825	
Building maintenance	116,000	7
<u>Parks and Recreation</u>		
Community and Arts Building	9,000	
Parks and Recreation	672,935	<u>4</u>
General Fund Total	6,540,220	35

TABLE IV-12 (Continued)

Other Fund Expenditures

Park fee improvement	323,050	2
Storm drain fee improvement	304,100	1
Sewer M&O	954,075	5
Golf course	380,360	2
Refuse	1,253,275	7
Water M&O	866,700	4
Water fee improvement	685,000	3
Parking fee improvement	14,060	
Gas tax	423,300	2
Sewer fee improvement	4,722,095	25
LTF - SB 325	1,059,120	6
Special apportionment, streets, etc.	775,500	4
Subsidized taxicab transportation	97,500	
SIR insurance	75,000	
West		2
Edison Improvement District	2,100	
1970 Sewer Bond	66,000	
Revenue Sharing	70,000	
Career Criminal Apprehension	95,460	<u>2</u>
Community Development Block Grant	<u>218,000</u>	
Other Funds Total	12,384,695	65
Grand Total Expenditures	18,924,915	

Source: City of Manteca

TABLE IV-13

City of Manteca Expenditures
FY 76-77 to FY 82-83

Fund	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>	<u>1979-80</u>	<u>1980-81</u>	<u>1981-82</u>	<u>1982-83</u>
General Fund	2,519,363	2,907,488	3,031,892	3,622,482	3,873,817	4,400,103	4,237,489
Special Revenue Funds	152,981	666,790	1,219,038	1,169,927	1,728,626	1,235,905	1,394,529
Debt Service Fund	102,632	105,059	102,392	89,706	92,421	89,970	92,420
Capital Projects Fund	174,099	80,778	178,310	345,904	134,241	175,059	223,824
Enterprise Funds	1,022,319	1,206,016	1,149,149	1,507,874	1,748,506	1,787,224	2,189,016
Total Operating Funds	3,971,394	4,966,131	5,591,626	6,735,893	7,577,611	7,688,261	8,137,278
Trust and Agency Funds	2,410,318	3,063,698	3,283,801	3,969,929	3,983,815	4,148,895	4,419,732
Total All Funds	6,381,712	8,029,829	8,875,427	10,705,822	11,561,426	11,837,156	12,557,010

Source: City of Manteca, All Funds-Combined Statement of Cash Receipts and Disbursements, Fiscal Years 1976-77 to 1982-83.

TABLE IV-14

CITY OF MANTECA PROPERTY TAXES
FY 76-77 TO FY 85-86

<u>FY</u>	<u>Secured Taxes</u>	<u>Unsecured Taxes</u>	<u>Prior Years Secured and Unsecured</u>	<u>Total General Fund Property Taxes</u>
1976-77	608,351	82,370	19,070	709,791
1977-78	787,909	92,103	20,214	900,226
1978-79	222,617	--	382,276	604,893
1979-80	--	--	600,430	600,430
1980-81	698,051	--	169,621	867,672
1981-82	943,063	--	19,654	962,717
1982-83	1,013,724	--	15,941	1,029,665
1983-84	907,658	69,955	46,869	1,024,482
1984-85	980,392	76,866	53,976	1,111,234
1985-86*	1,035,000	82,000	60,000	1,177,000

*Based on budget projections

Source: City of Manteca

TABLE IV-15

CITY OF MANTECA SCHEDULE OF ASSESSED VALUATION
FY 76-77 to FY 85-86

<u>FY</u>	<u>Secured Property</u>	<u>Unsecured Property</u>	<u>Utility</u>	<u>Exemptions and Delin- quencies</u>	<u>Adjusted Total Valuation Secured and Unsecured</u>
1976-77	33,823,428	3,716,079	3,064,770	-3,242,008	37,362,269
1977-78	45,945,146	4,623,833	3,526,530	3,688,813	50,406,696
1978-79	60,254,218	5,898,181	3,670,170	4,071,031	65,751,538
1979-80	70,139,556	6,254,762	4,251,110	4,902,626	75,742,802
1980-81	74,150,000	6,400,000	4,350,000	5,200,000	79,700,000
1981-82	99,783,636	5,007,332	4,276,960	7,041,921	102,026,007
1981-83	436,967,169	24,538,529	20,496,490	30,684,380	451,317,808
1983-84	482,718,213	27,481,969	22,245,570	63,729,381	468,716,371
1984-85	547,790,375	30,323,988	26,204,410	69,734,596	534,584,117
1985-86	665,221,477	42,267,546	27,514,631	38,471,608	696,532,046

Source: City of Manteca

Fiscal Issues in Planning for Future Growth

Growth will bring additional revenues to the City and also necessitate new expenditures for municipal services. In addressing its future through the revision of the General Plan, Manteca will need to consider how growth could affect the fiscal condition of the City. Some of the issues that will impact the City's future fiscal health are summarized below.

General Fund

The property tax and the sales tax are the two most important revenue sources for the general fund. Their growth will have the greatest effect on the City's ability to maintain or improve the quality of general fund services.

The growth of property tax revenue is largely dependent on new development and the re-selling of existing property. Proposition 13 limited the increase in the assessed value of property (which determines the amount of property tax) to two percent a year for property that does not change ownership. An annual two percent change is likely to be less than the real increase in property values over time, and less than the general inflation rate. As a consequence, the amount of property tax revenues collected from existing development that does not change ownership will grow very slowly, and at a rate lower than the average long-term inflation rate. New development and property resales, however, are taxed at their full value in the year they are added to the tax role. In subsequent years, they too come under the two percent limitation until resold. Yet, when added to the tax roll, they represent a large change in assessed value over the previous year's value and a significant source of new property tax revenue for the City.

Manteca's property tax revenues grew slowly, and actually declined for a couple of years, after the passage of Proposition 13. However, Manteca's recent commercial development boom and the development of the industrial park have increased the assessed valuation of land within Manteca. Since the 1979-80 fiscal year, annual property tax revenues have increased by 52 percent (in constant dollars) (City of Manteca 1986). It is unlikely that future property tax revenues will increase at this rate. Residential and commercial growth will continue, but at a slower rate. It is estimated that future annual property tax revenue increases may approximate the five percent growth rate assumed for the 1985-86 budget (City of Manteca, 1985).

The sales tax is Manteca's largest single general fund revenue source. The sales tax, more than any other major general fund revenue source, has the potential to show robust growth in the future. Manteca's commercial sector growth has caused significant increases in sales tax revenues over the last 10 years. From fiscal years 1974-75, and 1979-80, sales tax revenues (in constant dollars) increased by 56 percent. From fiscal years 1980-81 to 1984-85, sales tax revenues (in constant dollars) increased by 30 percent (City of Manteca Operating Budgets).

As Manteca's retail sector continues to grow, sales tax revenues will increase. As stated in the market analysis section of this chapter, taxable retail sales could increase by 20 percent (in constant dollars) by the year

1990, and by 53 percent by the year 2005. Sales tax revenues should increase at a similar rate. This would represent a slowing of the sales tax revenue growth rate from a six to ten percent annual increase over the last 10 years, to a three to four percent average annual growth rate for the next 20 years. This represents a conservative estimate of potential sales tax revenue increased.

Subventions

Most subventions are allocated to the City based on its population. As the City's population grows, so too does its potential for obtaining more subvention revenue. However, the long-term outlook for subvention revenue growth is not encouraging.

In the past, federal revenue sharing made a significant contribution to City funds. This revenue source has been reduced considerably and is expected to be eliminated entirely by fiscal year 1986-87. In fiscal year 1984-85, Manteca received \$287,590 in general revenue sharing funds. In the current fiscal year, the City is expecting only \$70,000 from this source. This year, and in future years, this portion of the City's revenue will have to be accounted for through other revenue sources.

Other Funds

"Other Funds" revenues are generally composed of service charges levied against users of the City's enterprise activities. Users of the City's services and utilities pay fees which represent their share of the cost of providing the services. The fees are set so that the total revenues collected from fees will match the total cost of the service.

Manteca owns and operates the major water system in the area. The system is financed by monthly service charges and water meter fees. In addition, developers are required to bear the cost of water main extension and to dedicate utility easements of the City.

The sewage collection and treatment system is owned and operated by Manteca. Sewer service is financed by a combination of monthly service charges and connection fees. The residential connection fee is \$2,222 per unit, and the commercial connection fee is \$120 per fixture unit. In addition, developers are required to bear the cost of service extensions. Infrastructure required to serve a development, including sewer lines, must be located either within public rights-of-way or public easements dedicated to the City by the developer.

The City operates a storm drainage system that uses South San Joaquin Irrigation District irrigation lines to carry drainage out of the area, and uses parks for overflow storm drainage basins. The City assesses a drainage fee of \$2,360 per gross acre. This fee is intended to fund the construction or to reimburse the costs of constructing drainage facilities.

Manteca provides a refuse collection service for residential and commercial customers. Funding for the waste removal service is provided through the municipal billing of service users. Residential service fees are currently \$8.50 per month.

Generally, the City must adjust its charges for current services to cover administrative and operational costs. The mix of new service users in the City will influence the need for service rate increases in the future.

Capital Improvements

Increased residential, commercial, and industrial development will require capital improvements associated with the City's enterprise activities, as well as new curbs and streets and additional park and recreation facilities.

A 1985 engineering study (Kennedy/Jenks Engineers 1985) recommended a number of improvements to the City's water system. Capital improvements would include additional wells and an improved distribution center. These improvements are necessary to accommodate future growth. Water system capital improvements are funded by the water meter fee, which is a connection fee paid at the time a new building is constructed. Historically, revenues generated by the water meter fee schedule have been inadequate to finance the needed capital improvements (Brinton pers. comm.). The present water meter fee, however, is \$2,222 for 3/4-inch X 5/8-inch line size connections (typical residential connection). The connection fees will help finance current improvements but will probably not cover improvements needed over the 20-year planning period. The adjustment of the fee schedule in the future will need to be based on the mix of new development. As the commercial and industrial sectors grow, water meter fees may need to be increased substantially to cover the expansion and improvements required by this growth.

Manteca's sewage collection and treatment system was expanded in 1987 to 5.45 mgd (Phase I), allowing for about three years of growth. A second expansion of the treatment system (Phase II) is currently being planned and is expected to be completed by 1990.

The recent wastewater facility expansion was financed by a combination of sewer connection fees, City bond sale revenues, and state, and federal grants. If Manteca is to avoid the future rationing of sewer connection permits, it must plan now for financing future expansions. The availability of future federal funding is questionable. The revenue generated by the sewer connections fee has been inadequate to finance current improvements. These fees may have to be substantially increased to generate needed revenues. In addition, other funds may need to be put aside for future expansions.

Future development in outlying areas will require major new sewer trunk lines. Because of the fall of the land, it will be less costly to develop areas west and southwest of current development (Cantu pers. comm.). Developers must be required to bear the cost of service extensions.

A Storm Drainage Master Plan was prepared for the City of Manteca in 1987 by Raymond Vail and Associates. Improvements will be needed in the drainage system as the City continues to grow. Manteca is currently using South San Joaquin Irrigation District lines to carry much of the City's drainage. These lines are reaching a limit and will eventually need to be replaced by a system that services Manteca only (Cantu pers. comm.). A central dumping site, such as the sewer plant or river, will be needed.

In general, Manteca's development fee structure appears to be inadequate to finance future capital improvements. Currently, development in the industrial park is exempt from paying the storm drain, sewer connection, and water meter fees. (The exemption for the water meter fee is for lines up to and including, 1- 1/2-inch lines.) These fees are waived as an incentive for new businesses to locate in the industrial park. This incentive is probably necessary to compete with nearby areas for industrial development. However, as the park develops and expands south, the imposition of these fees may be necessary to finance future improvements to the City's sewer and water facilities.

FINDINGS

- o Based on population growth estimates, the demand for convenience goods (goods purchased regularly, i.e., grocery and drugstore goods) could increase by 20 percent over 1985 levels by 1990, and by 50 percent by the year 2005. If the rate of population growth is greater than expected, increased demand will be even greater.
- o As Manteca's population nears 50,000 (expected to approach that level near the years 2000 to 2005), the demand for space from large stores offering comparison goods is likely to increase dramatically.
- o Based on population estimates and estimated per capita sales, taxable retail sales should approach \$235 million (in 1985 dollars) by 1990, and \$305 million by 2005. This will generate a demand for 2,965,035 square feet of additional retail floor space. Much of this demand (perhaps 90 percent) could be met by developing vacant or under-utilized land that is currently zoned for commercial usage. However, it is likely that new residential developments will require new zoning for neighborhood commercial usage.
- o Demand for industrial space over the next 20 years is expected to be moderate. This is because Manteca's need for clean, light industrial, manufacturing and warehousing activities will exclude heavy industrial plants. Competition for light industrial firms from Stockton, Sacramento, and the Bay Area will also keep demand moderate.
- o Land zoned for industrial park usage in 1985 could potentially supply 2,709,300 square feet of floor space. Recent annual demand for industrial park floor space has been for about 70,000 to 80,000 square feet. Even if the annual demand for space grew to 100,000 square feet, it would still take approximately 27 years to develop the available land. This indicates that new industrially-zoned land may not be needed between now and the year 2005.
- o The growth of general fund revenues is directly tied to economic activity within the City. The growth in property tax revenues has been significant over the last 10 years. Future property tax revenue growth is likely to be slower, approximating a five percent annual growth rate (in constant dollars). Sales tax revenues should grow at a rate approximating retail sales increases. This could mean an increase of 50 percent by the year 2005.
- o The City's water, sewer and drainage systems will need major improvements to accommodate current and future growth. The development fee structure appears to be inadequate for raising the amount of revenues needed for these major capital improvements. The City must increase these fees, or find additional revenue sources if it is to accommodate expected growth and subsequent demand for services.

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CHAPTER V. TRANSPORTATION.

CHAPTER V

TRANSPORTATION

INTRODUCTION

A city is defined and at the same time constrained by the network of highways, roads, streets, and transit services that move its residents and goods through and in and out of the city. This chapter discusses Manteca's transportation system and services, including streets and roads, parking, bus service, rail service, air service, and taxi service.

STREET AND ROAD SYSTEM

Physical Constraints on the Street and Road System

The circulation pattern in the Manteca Planning Area is constrained by a number of man-made and natural barriers that limit future connections and alignments. Highway 99, which borders the city on the east, and State Route 120, which runs east-west through the southern part of the city, act as physical barriers limiting access because of the relatively few on-off ramps and grade-separated crossings. At the edge of the Planning Area, well to the west of the city, Interstate 5 and the San Joaquin River, similarly form a barrier to the expansion of both the circulation system and the city itself.

The Southern Pacific Railroad tracks run southeast-northwest through the city, and the Tidewater Southern Railroad tracks parallel the S.P. tracks in the downtown area and run north-south between Union Road and Main Street north of North Street. These railroad tracks restrict access and circulation because of the limited number of street and road crossings and the need to provide crossing protection, or preferably grade separation, wherever a road or street crosses them.

Another significant constraint on the circulation system is the abundance of cul-de-sac residential streets. Cul-de-sac streets predominate in the newer residential areas and are popular because they promote neighborhood identity and generate low traffic volumes. From a circulation viewpoint, however, the excessive use of cul-de-sac streets increases travel times and inconvenience for residents, delivery carriers, and emergency vehicles.

Because of the freeways, the railroad tracks, and the numerous cul-de-sac streets, there are few streets and roads providing continuous circulation through the city. The primary streets serving this function are Main Street and Yosemite Avenue. The intersection of these two streets in downtown, thus, is the focal point of traffic activity in the city and the critical point in the circulation system.

Roadway Classifications

Manteca's street and road system can be classified according to four functional types of roadways:

Local Service Roadways provide immediate access to properties, are likely to be discontinuous in alignment, and generally carry very light traffic volumes. Those streets not otherwise classified as one of the three following types of roadways fall into this class.

Collector Roadways are fed by local service roadways, provide local circulation options, provide connections to other roadways, and generally carry light to moderate traffic volumes. Streets falling into this class are Northgate Drive, Trailwood Avenue, Elm Avenue, Walnut Avenue, Edison Street, Alameda Street, North Street, Center Street, Pine Street, Fremont Avenue, Powers Avenue, Cottage Avenue, Northwoods Avenue, Locust Avenue, and Wawona Street.

Arterial Roadways are fed by local service and collector roadways, provide intra-city circulation and connections to regional roadways, and generally carry relatively heavy traffic volumes. Streets falling into this class are Lathrop Road, Louise Avenue, Yosemite Avenue, Airport Way, Union Road, Main Street, and Moffat Boulevard.

Freeways are fed by collector and arterial roadways, provide intra-city and inter-city travel, provide connections to other regional highways, and are capable of carrying heavy traffic volumes. Highways 99 and 120 and Interstate 5 serve this function in the Manteca Planning Area.

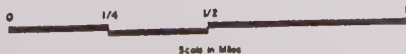
For a community of the size and scale of Manteca, it is not unusual for some roadways to serve a dual function, such as providing both arterial and collector service. It is, therefore, difficult to clearly classify every roadway. Furthermore, the width of a roadway does not always correspond directly to its function in the overall circulation system. Generally, however, the wider the roadway, the more regional is its function within the circulation system. Figure V-1 shows the Consultant Team's functional classification of Manteca's existing roadway system.

The City's current Street and Circulation Plan, presented in Figure V-2, shows existing and proposed roadways. Many of the future collectors, are yet to be developed, primarily because development in their vicinity has not yet occurred. Additionally, the Highway 120 By-pass interchange at Union Road has yet to be constructed.

Some of the streets listed in the Consultant Team's functional classification are either not shown on the City's Street and Circulation Plan or are shown in different categories. The Consultant Team's listing is based on the functional character of the streets within the overall street system, without regard to official Circulation Plan designation.






MANTECA
CALIFORNIA
General Plan



J. LAURENCE MINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

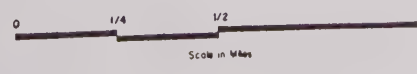
FIGURE V-1. STREET AND ROAD SYSTEM
- FUNCTIONAL CLASSIFICATION

-  FREEWAY
-  ARTERIAL
-  COLLECTOR

Source: Joseph R. Holland, Consulting Traffic Engineer, November 1985

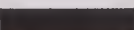








MANTECA
CALIFORNIA
General Plan



J. LAURENCE MINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

FIGURE V-2. MAJOR STREET & CIRCULATION PLAN

- | | | | |
|---|-------------------------|---|-----------------------|
|  | FREEWAY |  | GRADE SEPARATION |
|  | ARTERIAL |  | INTERCHANGE |
|  | COLLECTOR |  | (OPEN WHERE PROPOSED) |
|  | (DASHED WHERE PROPOSED) | | |

Source: City of Manteca Public Works Department, January 1986

The major circulation system within the unincorporated portion of the study area is made up of two-lane rural roadways. The principle and secondary roadways within the study area include:

	<u>Principle Roads</u>	<u>Secondary Roads</u>
East-West	Lathrop Road Louise Avenue West Yosemite Avenue Woodward Avenue W. Ripon Road	Roth Road Northland Road Southland Road Graves Road
North-South	Airport Way Union Road Manteca Road Austin Road Jack Tone Road	McKinley Avenue

In addition to these roadways there are numerous lesser, rural roadways, which serve a primarily local service function. In the community of Lathrop, the residential subdivisions are developed with typical residential streets.

There are three freeways within the Planning Area. Interstate 5, which runs north-south in the western part of the Planning Area, is a multi-lane, controlled access freeway with interchanges at State Route 120, Louise Avenue, Lathrop Road, and Roth Road.

State Route 99, which also runs north-south through the central part of the Planning Area, is also a multi-lane, controlled access freeway and has interchanges at State Route 120, East Yosemite Avenue, Lathrop Road, and French Camp Road.

State Route 120 runs east-west through the Planning Area. Between Interstate 5 and Route 99 freeways, Route 120 is an access controlled, three-lane freeway with interchanges at Airport Way and Manteca Road (South Main Street). This section is often referred to as the 120 By-pass. East of Route 99, Route 120 is the extension of East Yosemite Avenue. It is a two-lane rural highway, with left turn lanes added at major intersections.

Roadway Widths and Physical Characteristics

The local service and collector roadways in the city generally have right-of-way widths of 60 feet, with pavement widths of 40-44 feet. Some older streets are narrower, in the range of 50-foot rights-of-way with 36-foot pavement widths.

Most of the arterials have right-of-way widths in the range of 80-84 feet, with street widths of 64 feet. The newer sections of arterials are slightly wider with right-of-way widths of 90-104 feet and street widths of 70-84 feet. Figures V-3 and V-4 show the City's current standard street cross-sections.

The rural roadways in the unincorporated area typically have dashed yellow centerlines and white edge (fog) lines. Most do not have fully paved shoulders, and some have no paved shoulders at all. Notable exceptions include Jack Tone Road, French Camp Road, and West Yosemite Avenue. The smaller rural roadways are less well developed in terms, widths, and markings.

The traffic-carrying capacity of streets is typically quantified by assessing the ability of intersections to accommodate peak-hour traffic volumes. The peak hour is the time of highest concentrations of traffic. The intersections are the critical points in the street system where right-of-way assignment for conflicting traffic flows is controlled by signals or STOP and YIELD signs. For planning purposes, however, it is possible to estimate approximate daily traffic volume levels that are associated with the peak-hour traffic-carrying ability of the various types of streets.

The ultimate "capacity" of a street is the maximum level of traffic a street of a given width (number of lanes) can carry in a specified time period (i.e., per hour or per day) without resulting in extreme congestion during the peak traffic loading periods of the day. Because these conditions are generally not considered acceptable for planning purposes, criteria are used to identify lower traffic volume levels that have better (free flowing) peak period traffic conditions. These criteria, called Level of Service criteria, generally relate to the travel speeds of traffic and the proportion of the capacity represented by the traffic levels actually carried.

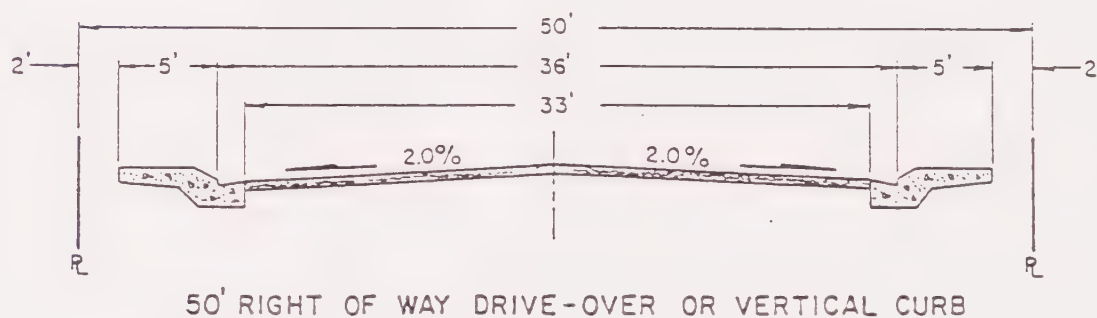
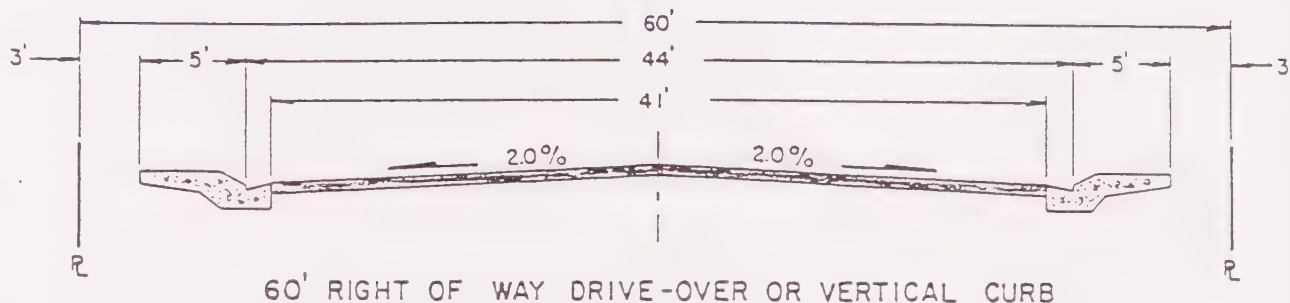
For urban roadways, the proportion of capacity used, or volume-to-capacity (V/C) ratio, is the primary criteria used to characterize the various levels of service. Service levels are identified by the alphabetic characters A, B, C, D, E, and F, with A representing the best (most free-flowing) peak period traffic conditions and F representing the worst conditions with traffic demand in excess of hourly capacity levels.

Table V-1 presents a summary of the general relationship between level of service, V/C ratio, and the relative peak-period congestion associated with each level of service.

TABLE V-1
LEVEL OF SERVICE CRITERIA

<u>Level of Service</u>	<u>V/C Ratio Range</u>	<u>Conditions</u>
A	< 0.61	Minimum delay
B	0.61 - 0.70	Increasing delay
C	0.71 - 0.80	with increasing
D	0.81 - 0.90	V/C ratio
E	0.91 - 1.00	High delay
F	> 1.00	Excessive delay and backups

Source: Joseph R. Holland, Consulting Traffic Engineer, based on Highway Capacity Manual, 1985

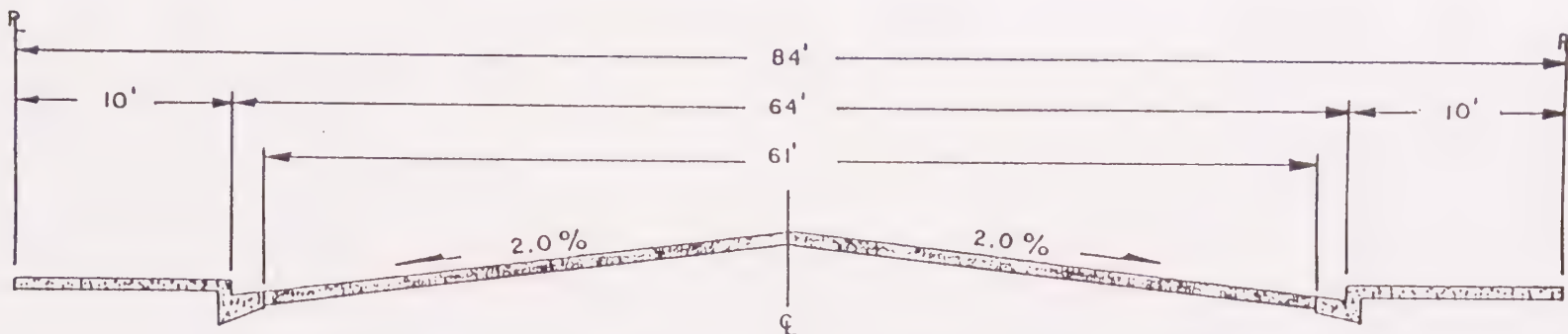


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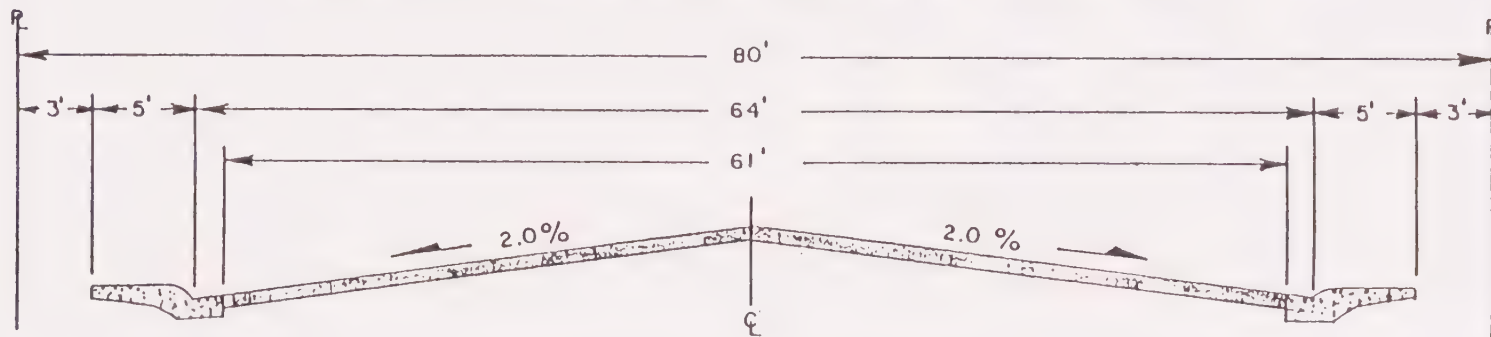
1. CROSS SLOPES SHALL BE 2.0% ON NEWLY CONSTRUCTED STREETS.
2. WHEN MATCHING EXISTING PAVEMENT CROSS SLOPE SHALL BE 2% IN TRAFFIC LANES AND SHALL NOT EXCEED 5% IN SHOULDER AREAS OR 3% AT INTERSECTIONS.
3. PAVEMENT STRUCTURAL DESIGN SHALL BE BASED UPON, "THE FLEXIBLE PAVEMENT STRUCTURAL SECTION DESIGN GUIDE FOR CALIFORNIA CITIES AND COUNTIES", AS MODIFIED IN CITY RESOLUTION NO. R-5633.

FIGURE-V-3.

NO.	REVISED	BY	STANDARD STREET CROSS SECTIONS	APPROVED BY:
				DIRECTOR OF PUBLIC WORKS
DRAWN BY: JEH			CITY OF MANTECA DEPARTMENT OF PUBLIC WORKS	DRAWING NO. ST-1
CHECKED BY: MAS				DATE: JAN. 1982
SCALE: NONE				



84' RIGHT-OF-WAY VERTICAL CURB WITH PARKING STRIP



80' RIGHT-OF-WAY DRIVE-OVER OR VERTICAL CURB

NOTES:

1. CROSS SLOPE SHALL BE 2% ON NEWLY CONSTRUCTED STREETS.
2. WHEN MATCHING EXISTING PAVEMENT CROSS SLOPES SHALL BE 2% IN TRAFFIC LANES AND SHALL NOT EXCEED 5% IN SHOULDER AREAS OR 3% AT INTERSECTIONS.
3. PAVEMENT STRUCTURAL DESIGN SHALL BE BASED UPON, "THE FLEXIBLE PAVEMENT STRUCTURAL SECTION DESIGN GUIDE FOR CALIFORNIA CITIES AND COUNTIES", AS MODIFIED IN CITY RESOLUTION NO. R 5633.

FIGURE V-4.

NO.	REVISED	BY
DRAWN BY: ALEX MENOR		
CHECKED BY: MAS		
SCALE:		
STANDARD STREET CROSS SECTIONS		
CITY OF MANTECA DEPARTMENT OF PUBLIC WORKS		
APPROVED BY:		
DRAWING NO. ST-1A		
DATE: JAN. 1982		
DIRECTOR OF PUBLIC WORKS		

Peak period traffic conditions of, or better than, Levels of Service C or D are generally considered to be within the range of acceptable congestion or delay for urban communities. In smaller communities, however, drivers are typically impatient with any delay in traffic; heavier traffic levels and congestion will usually be tolerated for short periods during special occasions or local celebrations, but not on a regular, day-to-day basis. In these communities, it is not unusual for Levels of Service A or B to be cited as the only acceptable conditions.

Daily traffic volume levels associated with Service Levels A through E are shown in Table V-2 for two-lane and four-lane streets. The volumes shown would apply to a collector or arterial street considered the major street at an intersection. Even lower volumes would apply to a street when it is the minor street at an intersection.

TABLE V-2
MAXIMUM DAILY TRAFFIC VOLUMES
ASSOCIATED WITH EACH LEVEL OF SERVICE

<u>Level of Service</u>	<u>Maximum V/C Ratio</u>	<u>Maximum 2-Way Volume</u>	
		<u>Two-lane Street</u>	<u>Four-lane Street</u>
A	0.60	7,500	15,000
B	0.70	8,750	17,500
C	0.80	10,000	20,000
D	0.90	11,250	22,500
E	1.00	12,500	25,000

Source: Joseph R. Holland, Consulting Traffic Engineer, based on assumed standard facility design and usage

The traffic volumes shown in Table V-2 are generalized approximations and should be used only as rough guidelines. Many factors associated with a particular street could increase or decrease these values, such as the width of traffic lanes, the relative amount of cross-traffic at intersections, the presence or absence of curb parking along the street, and the presence or absence of left-turning lanes at intersections.

Signalized Intersection Controls

There are presently eleven intersections within the city which are controlled by traffic signals:

- o Union Road/Yosemite Avenue
- o Union Road/Center Street
- o Main Street/Moffat Boulevard
- o Union Road/Louise Avenue

- o Main Street/Yosemite Avenue
- o Main Street/Center Street
- o Main Street/North Street
- o Main Street/Alameda Street
- o Main Street/Louise Avenue
- o Louise Avenue/Elm Avenue
- o Yosemite Avenue/Powers Avenue

Signalization of the Union Road/Northgate intersection is planned in the near future.

Traffic Volume Levels

Traffic volume levels on Manteca's streets range from a few hundred vehicles per day (vpd) on local service streets to over 19,000 vpd on portions of Main Street. The streets with the heaviest traffic are shown in Table V-3.

TABLE V-3
TRAFFIC VOLUMES ON SELECTED STREETS

Traffic Volumes

<u>Roadway</u>	<u>Vehicles Per Day</u>
Main Street	8,000 - 19,000
Yosemite Avenue	13,900 - 18,200
Louise Avenue	2,000 - 13,500
Union Road	2,000 - 12,000
Center Street	3,400 - 8,000
Lathrop Road	6,100 - 7,100
Cottage Avenue	3,700 - 6,900
Northgate Drive	3,100 - 6,400
Moffat Boulevard	2,200 - 6,400
North Street	2,200 - 4,400

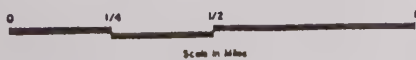
Source: City of Manteca Public Works Department, 1985

The daily traffic volumes on Highway 99 in the vicinity of Manteca range from 26,000 to 31,000 vpd. The daily traffic volumes on State Route 120 in the vicinity of Manteca range from 16,300 to 20,000 vpd. Current daily traffic volumes on the city's major streets, Highway 99, and on Route 120 are presented in Figure V-5. Daily traffic volumes for roads and state highways in the unincorporated area are shown in Figure V-6.

The typical daily variations in traffic volumes on streets within the city are demonstrated by the Yosemite Avenue data presented in Chart V-1. Weekly and seasonal variations in traffic volumes are portrayed by the State Route 120 data presented in Charts V-2 and V-3.



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JONES & STOKES ASSOCIATES

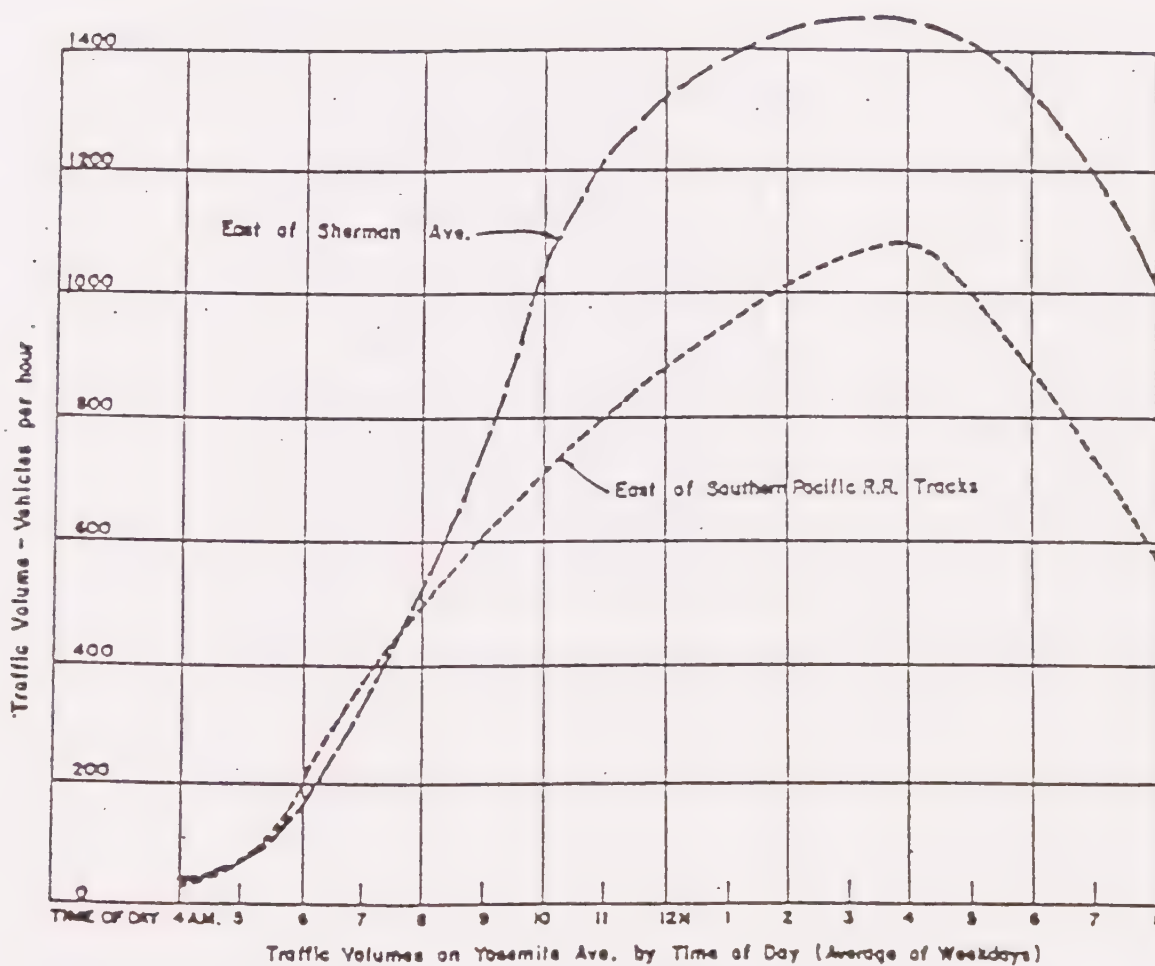
FIGURE V-5. TRAFFIC VOLUMES—
MANTECA

24-HOUR WEEKDAY AVERAGES IN THOUSANDS

Source: City of Manteca Public Works Department, 1983-1985

CHART V-1

TYPICAL DAILY VARIATIONS IN TRAFFIC VOLUMES Yosemite Avenue



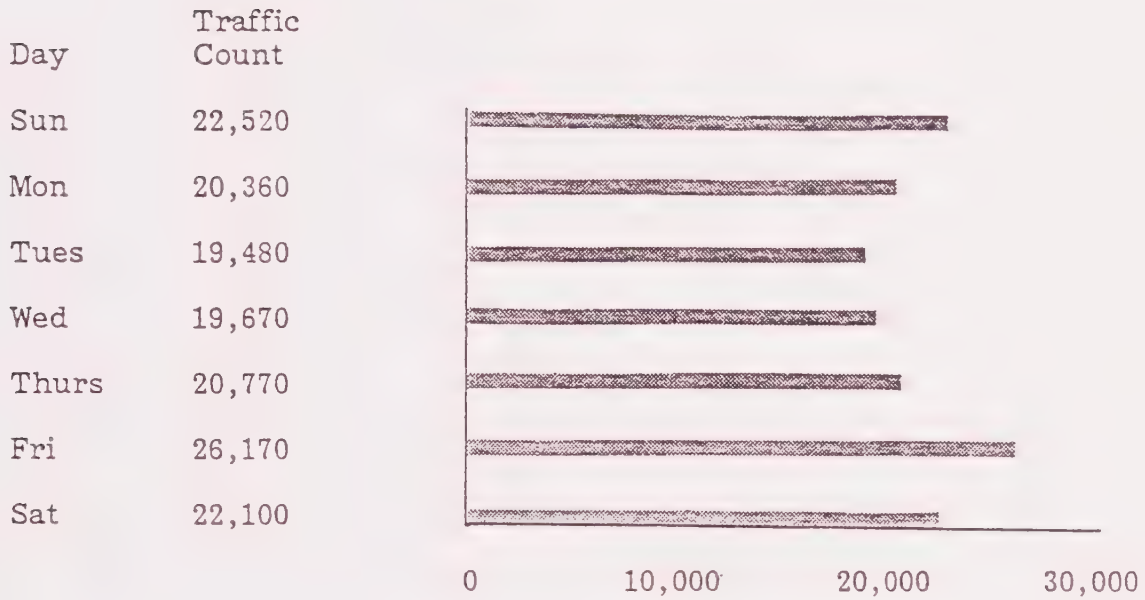
October 1984

Source: "Traffic Engineering Study on Yosemite Avenue",
Wilbur J. Elias & Associates, Inc., Feb. 1985

CHART V-2

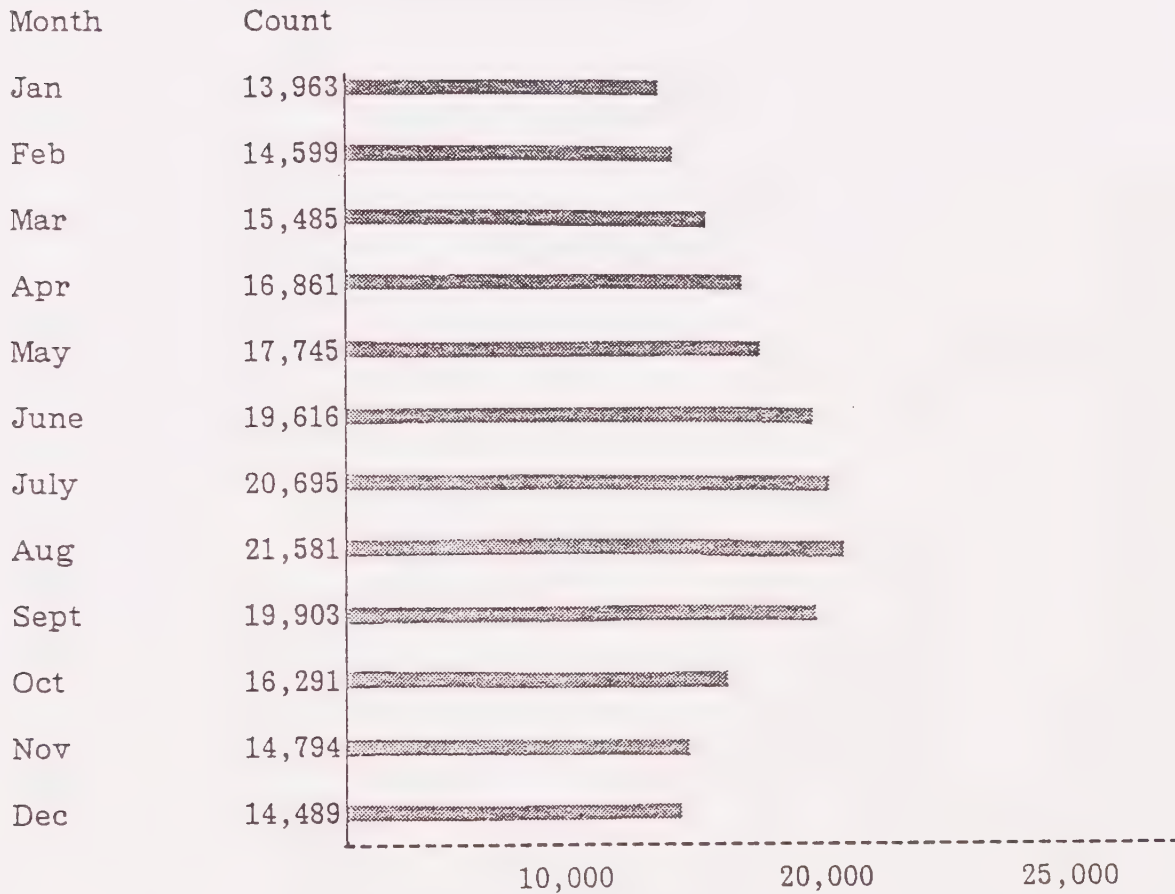
DAILY TRAFFIC COUNTS

State Route 120 Near Highway 99



Source: California Department of Transportation, August 1983

CHART V-3
TWENTY-FOUR HOUR TRAFFIC COUNT
State Route 120 Near Highway 99



Source: California Department of Transportation, 1982/1983

Traffic Generation Rates

Based on empirical studies, traffic engineers are able to project the amount of traffic most types of development will generate. Table V-4 depicts typical trip generation rates for the most common types of development. A trip is defined as a one-way vehicle movement which either begins or ends within the site of the land use being considered. These rates represent the number of "trip ends" (including the arrival end and the departure end of trips) which the given land uses will generate per unit of development (i.e., per dwelling unit, per acre, or per 1,000 square feet of floor space).

The peak hour trips generated by a given land use are those trips which are likely to occur during the highest one-hour period of traffic activity on the adjacent streets during the afternoon peak period (generally 4-6 p.m.) on weekdays. These peak hour trips are included in the daily trip rates for each land use shown. While the relationship between peak hour rates and daily rates varies by land use type, the peak hour volume on a given street is typically about ten percent of the daily traffic volume carried by the street. Actual counts on Yosemite Avenue confirm this general relationship, as shown in Chart V-1 where the peak hour volume is approximately eight percent of the daily volume.

TABLE V-4
TYPICAL TRIP GENERATION RATES

<u>Land Use</u>	<u>Type</u>	<u>Per</u>	<u>Daily Rate (Trip ends)</u>	<u>P.M. Peak Hour Rate (Trip ends)</u>
Residential	Single-family	D.U.	10.00	1.00
Residential	Multi-family	D.U.	6.10	0.70
Residential	Mobilehome	D.U.	4.80	0.59
Office	25 ¹	Acre	133.90	24.00
Office	40 ¹	Acre	214.30	38.30
Market		1,000 s.f.	125.50	8.82
Discount Store		1,000 s.f.	70.10	3.79
Commercial	<50,000 s.f.	1,000 s.f.	117.90	14.42
Commercial	50-100,000 s.f.	1,000 s.f.	82.00	7.80
Commercial	100-200,000 s.f.	1,000 s.f.	66.70	5.90
Commercial	200-300,000 s.f.	1,000 s.f.	50.60	4.80
Restaurant	Fast Food	1,000 s.f.	553.00	31.60
Restaurant	Coffee Shop	1,000 s.f.	164.40	10.50
Restaurant	Quality	1,000 s.f.	74.90	6.14
Industrial	Light	Acre	52.40	10.10
Industrial	Heavy	Acre	15.60	2.20
Industrial	Warehouse	Acre	56.10	18.80
Motels		Occupied Room	10.05	0.70
Motels		Occupied Room	10.01	0.65
Mobile Home		Occupied Unit	4.08	0.60
Retirement community		D.U.	3.03	0.40
Service station		Pump	133.00	3.60
Convenience market		1,000 s.f.	625.00	46.70

¹Square feet of floor space as percentage of site area

Source: Trip Generation, ITE, 1982

Traffic Accident Patterns

In 1984 there were 621 reported traffic collisions within the City of Manteca. This was up by about 11 percent from the 560 reported in 1983. Table V-5 presents a tabulation of the traffic collisions reported in these two years by type of collision and by severity (i.e., fatality, injury, or property damage only).

TABLE V-5
TYPES OF TRAFFIC COLLISIONS AND SEVERITY
City of Manteca

<u>Motor Vehicle versus:</u>	Prop. Damage <u>Only</u>	<u>1983</u> Fatal or <u>Injury</u>	Prop. Damage <u>Only</u>	<u>1984</u> Fatal or <u>Injury</u>
Pedestrian	1	6	0	13
Bicycle	3	18	2	18
Parked Motor Vehicle	57	8	70	9
Other Motor Vehicle	292	83	303	114
Fixed Object	66	14	60	12
Other Object	3	2	7	1
Non-collision	2	4	3	5
Other	<u>1</u>	<u>0</u>	<u>3</u>	<u>1</u>
Subtotals	425	135	448	173
All accidents		560		621

Source: SWITRS, California Highway Patrol, 1983 and 1984

These data indicate that, while property-damage-only accidents increased by only five percent, injury accidents increased by 28 percent. The largest of these injury accident increases was due to a significantly higher number of pedestrian-motor vehicle accidents and motor vehicle-motor vehicle accidents.

Table V-6 presents another tabulation for the same accidents with a breakdown of the primary collision factors and the severity. These data indicate that at least seven percent of the traffic collisions which occur within the city have alcohol or drug impairment as a primary collision factor. The largest category of known collision factors involves "unsafe" speed. The second largest category is failure to yield the right of way to other motor vehicles.

TABLE V-6
TRAFFIC COLLISIONS
PRIMARY COLLISION FACTORS AND SEVERITY
City of Manteca

Primary Collision Factor:	<u>1983</u>		<u>1984</u>	
	Prop. Damage Only	Fatal or Injury	Prop. Damage Only	Fatal or Injury
Alcohol/Drugs	25	18	26	17
Unsafe speed	158	32	153	60
Following too closely	3	0	8	0
Wrong side of road	11	5	7	5
Improper passing	3	2	6	3
Unsafe lane change	5	0	12	1
Improper turning	27	11	40	6
Automobile right of way	78	39	80	33
Pedestrian right of way	1	3	0	5
Hazardous parking	2	0	5	1
Unsafe starting/backing	46	5	41	2
Other improper driving	6	2	4	2
Other hazardous violation	5	8	5	6
Signals and STOP signs	7	2	14	7
Other than driver	10	2	10	7
Equipment (brakes, etc.)	3	0	2	3
Pedestrian violation	0	1	0	5
Unknown	<u>35</u>	<u>5</u>	<u>35</u>	<u>10</u>
Subtotals	425	135	448	173
All accidents		560		621

Source: SWITRS, California Highway Patrol. 1983 and 1984

The eight locations with the highest number of reported traffic collisions at or in the vicinity of an intersection in 1984 are presented in Table V-7.

TABLE V-7
HIGHEST TRAFFIC ACCIDENT INTERSECTIONS IN 1984
City of Manteca

<u>Intersections</u>	<u>1984 Accidents</u>
North Main St. & Louise Ave.	22
Main St. & Yosemite Ave.	15
North Main St. & North St.	14
Yosemite Ave. & Route 99	13
Yosemite Ave. & Powers Ave.	12
Yosemite Ave. & Union Road	11
Louise Ave. & Elm Avenue	8
Union Road & Northgate Drive	6

Source: SWITRS, California Highway Patrol, 1984

Local and Regional Transportation Improvement Plans

The City of Manteca, the County of San Joaquin, and the California Department of Transportation have each identified projects as part of a five-year transportation improvement plan (TIP), which is updated annually. TIP projects are funded by local agency funds and matching federal funds.

County Roadway Projects:

Williamson Road bridge replacement (at the west end of Woodward Road)

Resurfacing projects on the following roadway segments:

Airport Way - French Camp Road to Lathrop Road
Roth Road - SPRR to Airport Way
Louise Avenue - Interstate 5 to Manteca City Limit
Jack Tone Road - Highway 120 to Highway 99
West Ripon Road - Airport Way to Manteca Road
Moffat Boulevard - Highway 99 Ramps to Manteca City Limit

Federal Aid Primary

Route 120 - I-5 to Moffat Boulevard: edge drains
Highway 99: sound wall (future project)

Federal Aid Urban

North Main Street - Yosemite to Alameda: resurfacing
Lathrop Road - Union Road to Highway 99: improvement
Moffat Road - Grant Avenue to Powers Avenue: resurfacing

Powers Avenue - North Street to 100 feet south of Alameda
Street: resurfacing
Alameda Street - Main Street to Sherman Avenue: resurfacing
Louise Avenue - Main Street to Highway 99
Northgate Drive - Main Street to Union Road
Manteca Avenue: slurry seals
Louise Avenue - North Main to Route 99: resurfacing

Federal Hazard Elimination (Traffic Signals)

Northgate Drive and Union Road: new signal
Northgate Drive and Trailwood: new signal
Yosemite Avenue and Union Road: modify existing signal
Lathrop Road and Union Road: new signal
Lancaster Road and North Main: new signal
Industrial Park Drive and South Main: new signal
Pestana Avenue and Yosemite Avenue: new signal
Cottage Avenue and Louise Avenue: new signal
Cottage Avenue and Yosemite Avenue: new signal
Fremont Avenue and Yosemite Avenue: new signal

Federal Railroad Crossing Protection

Tidewater Southern RR at: Alameda Street,
Yosemite Avenue, and
Center Street

SPRR at Union Road widening project

System Improvements Recommended by Previous Studies

Previous traffic studies prepared for the City of Manteca have recommended a number of major improvements, as summarized below. It should be noted that there are inconsistencies among study recommendations, especially concerning the implementation of one-way streets.

Major Street and Circulation Plan (1968), Wilbur Smith & Associates

One-way street couplet - Grant Avenue (northbound) and Maple Avenue
(southbound)

One-way street couplet - Yosemite Avenue (eastbound) and Center
Street (westbound)

Railroad undercrossings - Yosemite Avenue,
Center Street, and
South Main Street

Traffic Control Device Inventory, (1975), Alan M. Voorhees & Associates, Inc.

Recommended against one-way couplet for Center and Yosemite; instead, recommended peak period parking prohibitions and four-lanes plus left-turn pockets for Yosemite and measures to encourage more use of Center Street including signing, pavement markings, and signalization.

Recommended against one-way couplet for Grant and Maple (or Grant and Main); instead, recommended parking removal and two-lanes plus left-turn lanes at intersections for Main Street, with suggestion that lost spaces be replaced with off-street spaces, if possible.

Yosemite Avenue Traffic Engineering Study (1985), Wilbur J. Elias & Associates, Inc.

Remove the existing planters and parking on Yosemite Avenue, providing four travel lanes.

Remove all parking on Main Street, providing four travel lanes.

Establish off-street parking facilities to replace lost on-street spaces.

Revise the signal phasing at the Yosemite/Main intersection.

Stripe Center Street for four travel lanes.

Urge San Joaquin COG to include Highway 120 By-pass/Union Road interchange ramps in the local transportation improvement plan.

Study the long-range possibility of:

Additional street crossings of the SP and Tidewater Southern Railroads

Grade separations at the SP and Tidewater Southern Railroads on Yosemite, Louise, Main, etc.

Future widening of Yosemite Avenue and Main Street in conjunction with future redevelopment plans

Adding interchange ramps on Highway 99 at Louise and at Edison/Cottage

Recent EIR Traffic Studies (1985)

Signalize the Yosemite/Locust intersection, widen Yosemite Avenue to add a left-turn lane

Widen Yosemite to four lanes plus left-turn lanes at Union Road

Widen Union Road to four lanes from Highway 120 to Yosemite, with a center two-way left-turn lane

Signalize the Union Road/Wawona Street intersection

Widen Highway 120 Bypass to provide a six-lane freeway facility

Widen Airport Way from north of Yosemite Avenue to south of Highway 120, providing four-lane and six-lane sections with single or dual left-turn lanes where required

Widen Yosemite Avenue from Union Road to Airport Way, providing four travel lanes plus turn lanes

Reconstruct the Highway 120 Bypass/Airport Way interchange to widen Airport Way and add loop ramps

Signalize the following intersections:

Yosemite Avenue and Cottage Avenue
Cottage Avenue and Button Avenue
Cottage Avenue and Louise Avenue

On-Street and Off-Street Parking

There are presently curb parking spaces along all streets within the downtown area, although there are selective curb parking prohibitions (red curbs) at various locations for sight distance enhancement and to make room for left-turn lanes at intersections. In the commercial core, these spaces generally have 2-hour and 4-hour time limits; there are, however, some 10-minute and 24-minute spaces.

Additionally, the City owns and operates eight public parking lots, with a total of 196 parking spaces. These lots are located within one block either north or south of Yosemite Avenue, in the area between Syracuse Avenue and Grant Avenue (see Figure V-7). Most of these spaces have two-hour time limits, except for the lot on Maple Avenue south of Yosemite Avenue which has no time limit.

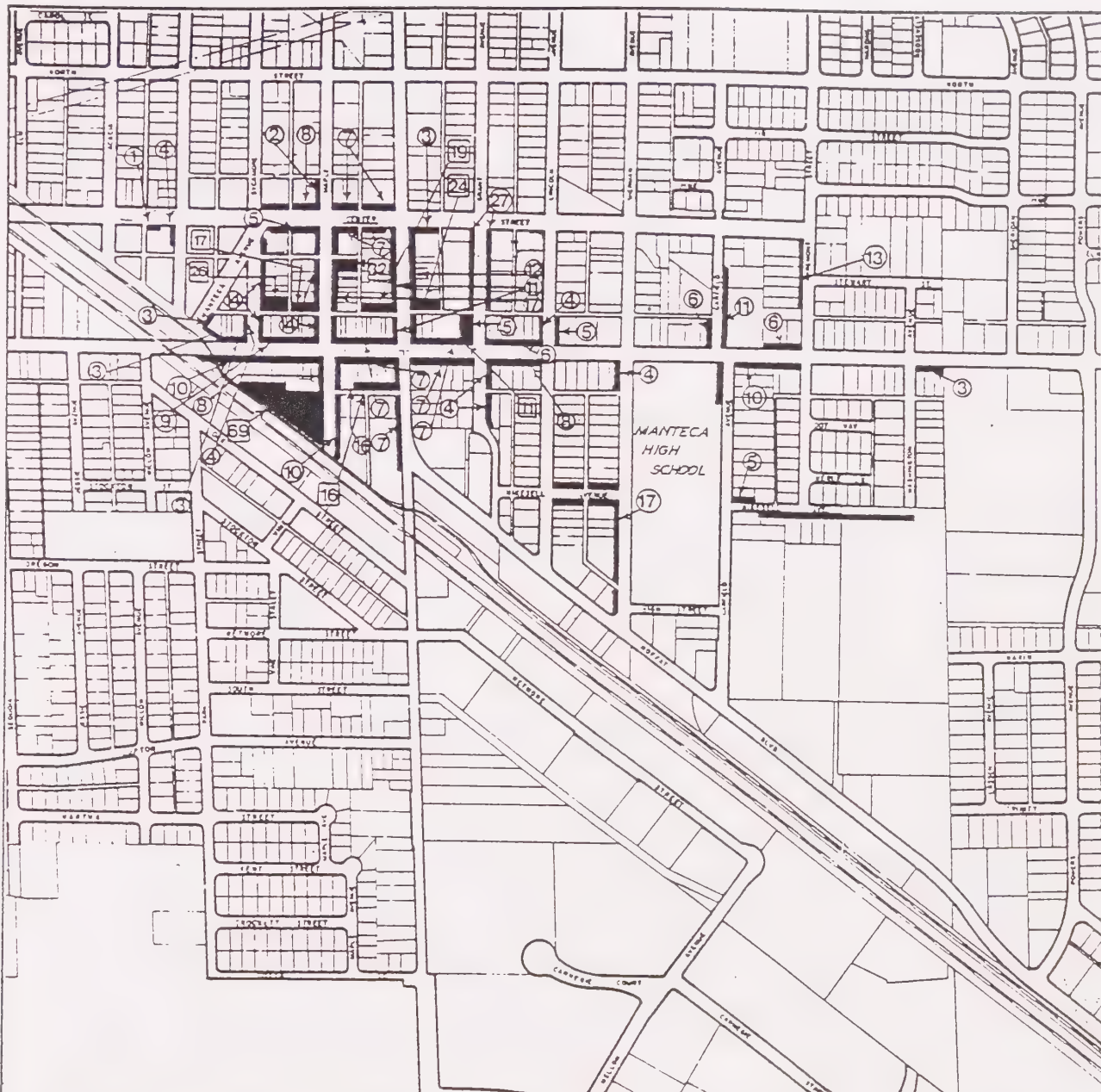
The present number of on-street and off-street parking spaces within the downtown commercial district appears to be adequate to accommodate the average parking demands generated by the existing land uses. This conclusion is based on general observations by the Consulting Team and the lack of complaints from the public regarding existing parking conditions. Any future street system improvements which result in the loss of curb parking could alter this apparent balance between parking supply and demand.

BUS SERVICE

Greyhound provides service from Manteca to Ripon, Modesto, Tracy, and Stockton and, through connections in major metropolitan areas, service throughout the United States. Currently (January 1986), eleven buses arrive and depart on a daily basis from the Greyhound Agency Office and terminal located at 1155 East Yosemite in Manteca.

Manteca is also served by San Joaquin County's South County Area Transit (SCAT). The SCAT bus makes three passes a day through Manteca and provides service throughout Manteca as well as to Lathrop and San Joaquin County General Hospital in French Camp. Connecting service with the Stockton Metropolitan Transit District to other Stockton locations is available at the hospital in French Camp. Within Manteca there is no fixed bus route; stops are scheduled by telephone request.

The County Department of Aging also sponsors the County Area Transit (CAT) program for the elderly and handicapped countywide. CAT vans provide transportation for medical appointments or for any other purpose by telephone request.



0 1/4 1/2



Scale in Miles

MANTECA
General Plan
1986



FIGURE V-7. ON-STREET / OFF-STREET PARKING



ON-STREET PARKING

OFF-STREET PARKING

12

NUMBER OF ON-STREET SPACES

16

NUMBER OF OFF-STREET SPACES

Source: City of Manteca Public Works Department

RAIL TRANSPORTATION

Three rail lines run through the Planning Area. The Southern Pacific Railroad tracks run diagonally--southeast to northwest--through the center of Manteca. This line is used exclusively for freight transportation (e.g., grain, lumber, frozen food, containerized cargo). An average of six to eight trains run through Manteca on a daily basis. Southern Pacific has no plans for expansion or reduction in rail service.

The Tidewater Southern line, owned by the Union Pacific System, parallels the Southern Pacific line through the southeastern and central part of Manteca and then heads directly north midway between Union Road and Main Street to its junction with the main Union Pacific line at French Camp. The traffic on this line is also limited to freight transportation of small amounts of frozen foods and grain, primarily on an as-needed basis. The abandonment of the Tidewater Southern line has been discussed, but the decision is imminent.

The Western Pacific Railroad line, also owned by the Union Pacific System, originates in Oakland and runs roughly parallel to I-5 through Sharpe Army Depot and north through Stockton, and ultimately to Chicago. Within the Planning Area the Western Pacific line provides freight service only to the Sharpe Army Depot.

AIR TRANSPORTATION

The closest major airport to Manteca is the County-owned Stockton Metropolitan Airport, located eight miles north of Manteca at Airport Way and Sperry Road.

The airport has two parallel runways. The main runway--8,650 feet long--is used primarily for commercial jet operations and California Army National Guard aircraft. The second runway is 3,000 feet long and is used by general aviation aircraft. In addition to the airfield complex, the airport's other facilities include 41 "T" hangars; 15 shelters; 172 tie down spaces; and a 60,280 square foot terminal building housing restaurants, car rental outlets, a flight service station, the weather bureau, airline service counters, the airport's administrative offices, and a 3,000 square foot security concourse.

Commercial air services, including passenger and air cargo service, are currently offered by three regularly scheduled airlines: USAir (formerly PSA), Continental, and United Express/West Air, which provides commuter service to San Francisco International Airport.

There are a number of other fixed operators at Stockton Metropolitan Airport providing charter services, flight training, helicopter service, and repairs/sales. These include the A.G. Spanos Jet Center (corporate jet service), Central Valley Aviation (single and twin engine rentals), Mid-County Air, Inc. (helicopter service), and Stockton Aviation, Inc. (flight training). One fixed operator, Werner's, provides repair service and sales as well as fuel service.

For long-distance and international flights, Manteca residents use the San Francisco International Airport and the Oakland International Airport primarily.

The only airfield within the Planning Area is a military airstrip at Sharpe Army Depot. The airfield is used on a daily basis, although the frequency of flights is not known.

TAXI SERVICE

Taxi service in the Manteca area is provided by one private company. The Red Top Cab Company has numerous cars available on a 24 hour basis.

The City of Manteca subsidizes taxi services for senior citizens and handicapped individuals through the issuance of coupons. In the 1987-88 budget, the City authorized \$100,275 for the taxi service subsidy, and approximately 5,000 persons are expected to use the service. Only Red Top Taxi presently participates in the program.

LIGHT RAIL

In light of growth in the Tri-Valley Area, Alameda County is considering the need for a light rail system for the area linked to the Bay Area Rapid Transit (BART) system. A feasibility study for the light rail transit prepared for Alameda County mentions the possible extension of the system to Tracy. In response to the study, the City of Manteca has initiated exploratory discussions with Alameda County concerning the possible extension of the light rail system to Manteca.

FINDINGS

- o Most city streets are carrying traffic volume levels that are within their capacity ranges for acceptable peak hour conditions. Notable exceptions are Main Street and Yosemite Avenue, especially the intersection of these two streets, which now operate at Level E several hours of the day. Additional traffic within the city could aggravate existing traffic conditions at this and other locations, depending on the location, amount, and type of future development.
- o A number of problems that are built into the existing street network will not easily be overcome:
 - The difficulty and cost of widening narrow streets in already existing development areas.
 - The limited alternatives for effectively increasing the north-south and east-west traffic-carrying capacity of the street network.
 - The difficulty and cost of making street extensions and connections as a result of natural and man-made physical barriers, such as the railroads, the freeways, and existing development.
 - The limited number of continuous routes within the city, as well as the limited number of freeway access points.
- o The air transportation needs of Manteca residents are presently well-served by the Stockton Metropolitan Airport and the International airports in Oakland and San Francisco.
- o There has been some discussion of the possibility of Union Pacific abandoning the Tidewater Southern line. Should this line be abandoned, the City will have an opportunity to acquire the railroad right of way and possibly use it for a transportation corridor.
- o The major issue concerning rail operations is the rail lines effect on city traffic patterns. While trains through Manteca are infrequent, the trains do disrupt traffic and create safety problems. As the city expands in area and population, the need for several grade separations will become critical.
- o The possible development of a light rail system in the Tri-Valley area and its eventual extension to Tracy and even farther, to Manteca is currently being explored. While a light rail system link to the Tri-Valley area would not solve any major transportation problems within the Planning Area, the light rail system would have major implications for the interregional commuting patterns and would have a major growth-inducing impact.

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GLOSSARY

Grade Separation - The physical separation of the grades (levels) of two roadways or a roadway and a railway; typically accomplished with an overpass bridge structure.

Grade-Separated Crossings - An overcrossing or an undercrossing which physically separates the traffic flows on two transportation facilities so that they do not intersect.

Cross-Section - The section view across the width of a street, which usually indicates the width of the street, the number of lanes, the width of any median, and the width of sidewalks, bicycle lanes, and planter areas.

Right-of-Way - The width of publicly dedicated streets, including the pavement, sidewalks, and planting area; the width between property lines on either side of the street.

Traffic-Carrying Capacity - The maximum amount of traffic which a street can carry in a given amount of time without reaching unstable (or forced flow) traffic conditions; usually expressed as "vehicles per hour."

Level of Service - An indication of the peak hour traffic conditions which are experienced on a given street with the particular traffic-carrying capacity of the street and a given amount of traffic using the street; this is typically defined by a range of volume to capacity ratios, designated by the alphabetic characters A, B, C, D, E, and F.

Volume to Capacity Ratio - The ratio of the volume of traffic carried by a street to the street's traffic-carrying capacity; used to determine the applicable level of service for a street at a given traffic volume level; abbreviated as V/C.

Trip - A one-way vehicle movement that either begins or ends at the location being considered; thus, a vehicle leaves a home and later returns to it would account for two trips under this definition.

CHAPTER VI. PUBLIC FACILITIES & SERVICES

CHAPTER VI

PUBLIC FACILITIES AND SERVICES

INTRODUCTION

City development is dependent on a complicated network of public facilities and services. Each type of service has a unique set of constraints and must adapt to growth differently. The City of Manteca provides most of the key facilities and services required to support growth. This chapter reviews key public facilities and services, focusing primarily on water, sewage collection and treatment, drainage, fire, police, and schools. The chapter describes the various systems and their capacities and discusses the implications of these systems and their constraints for the General Plan. Transportation facilities and services are discussed separately in Chapter V, Transportation, and parks and recreation are discussed in Chapter VII, Cultural and Recreational Resources.

GENERAL GOVERNMENT

Manteca is a general law City, operating under the council/manager form of government. The City Council includes a major directly elected and four other members elected at large serving four-year staggered terms. The City Manager is appointed by the City Council and directs the services and functions of the City government.

The City has created a number of boards and commissions with specific decision-making responsibilities. These boards and commissions include:

Planning Commission

A five-member commission appointed by the City Council to provide guidance on land use and zoning matters and review use permits.

Citizens Advisory Committee

A sixteen-member committee appointed by the City Council to provide guidance in the General Plan update.

Sewer Allocation Committee

A committee made up of two City Council members, the City Manager and the Public Works Director to evaluate and allocate available sewer capacity to new development.

Golf Course Improvement Committee

A committee made up of two City Council members, the City Manager and the Parks and Recreation Director to study ways of improving and expanding the golf course facilities.

Senior Citizen Committee

A committee made up of the Mayor and City Manager to study the needs of senior citizens and review the proposal for a new senior citizens center.

Civic Center Master Plan Committee.

A committee made up of two City Council members to study the overall needs for expansion of the Civic Center Complex.

Water Conservation Committee

A committee made up of the Mayor, one City Council member, the City Manager, and the Public Works Director to evaluate ways of implementing water conservation techniques.

The administration of the City is organized into six departments: Planning; Parks and Recreation; Finance; Public Works; Police; and Fire.

Chart VI-1 is an organizational chart showing the departments of City administration.

All City administrative functions are located at 1001 West Center Street, except the fire department. The locations of the major public and quasi-public facilities are shown in Figure VI-1. In addition, public works facilities are located at 205, 208, 210 East Wetmore; and the corner of Oak and Vine Streets.

WATER SERVICE

The City of Manteca owns and operates the major water system in the Planning Area. The Raymus Village Subdivision, located in the northeast corner of the Planning Area, is served by the Raymus Village Maintenance District; the Lathrop area, located in the northwestern part of the Planning Area, is served by the Lathrop County Water District. The Spreckels Sugar Refinery has its own water system. Figure VI-2 shows the key elements of the City's water system.

The City's water system includes 15 wells, various water distribution lines, and a single 300,000-gallon elevated storage tank. The tank is 32 feet high and 42 feet in diameter, supported on top of a 100-foot tower. The supply from this limited capacity storage tank was exhausted on several days during July 1984. Figure VI-2 shows the location of public water sources.

Table VI-1 shows the production capacity for each of the existing City wells. Wells 1, 2, 3, 4, and 5 are unsealed and do not meet State Health Department standards. These wells present a potential contamination hazard. Wells 1, 2, and 6 are only used during emergencies because of their poor water quality. The water from Wells 1 and 2 is high in iron and manganese, while Well 6 produces water with dibromochloropropane (DBCP), an agricultural pesticide, levels that are above State Drinking Water Standards. In addition, manganese levels above State Drinking Water Standards have been found in Wells 12 and 13. These wells are being closely monitored by the City, and chlorination and flushing has been instituted to minimize potential taste and odor problems. Wells 7 and 11 have low levels of DBCP.



MANTECA CALIFORNIA General Plan



0 1/4 1/2
Scale in Miles

J. LAURENCE MONTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

FIGURE VI-1. MAJOR PUBLIC & QUASI-PUBLIC FACILITIES

PARKS (See Figure VII-2)

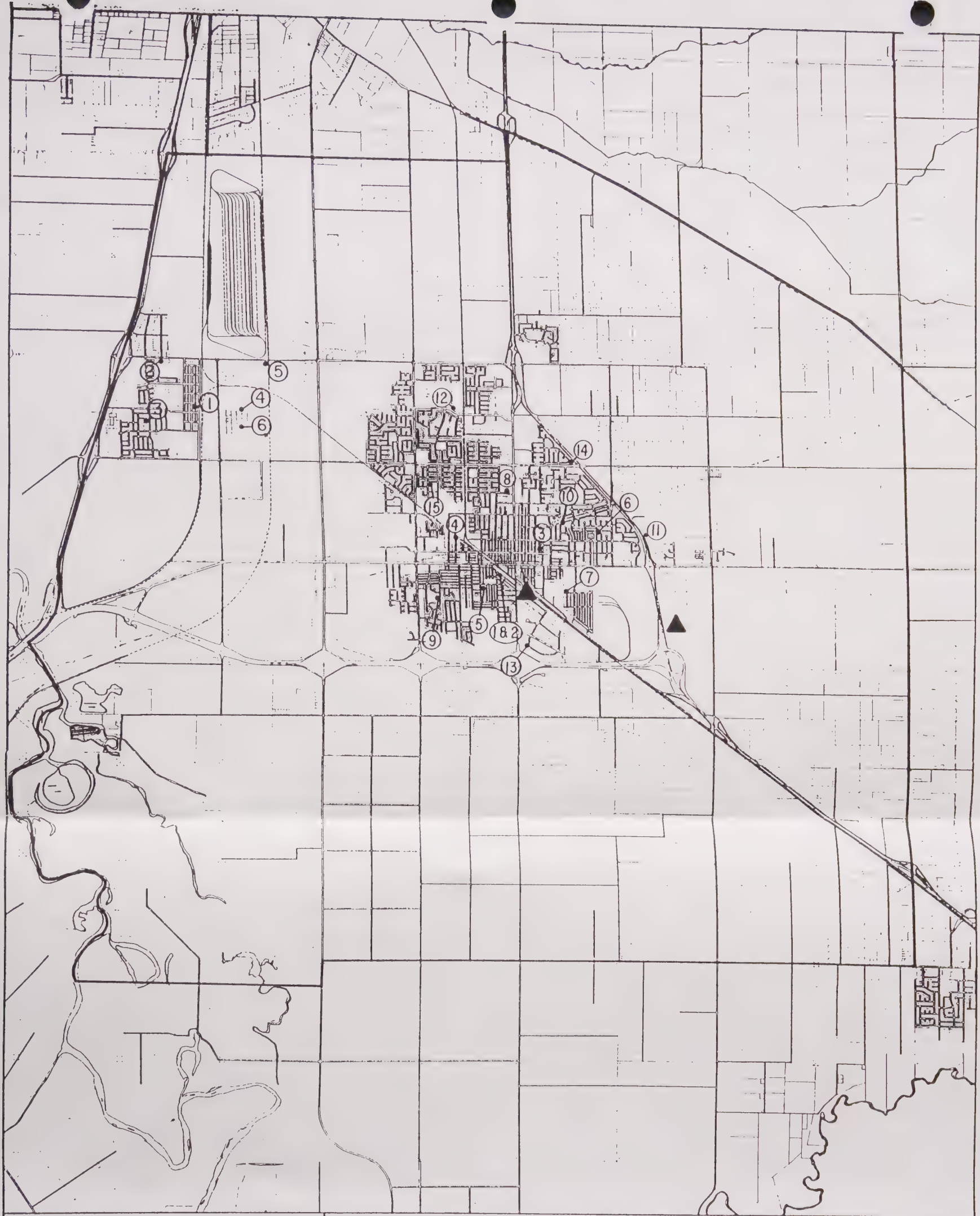
SCHOOLS

OTHER FACILITIES

- A. EAST UNION HIGH SCHOOL
- B. NEAL HAFLEY SCHOOL
- C. JOHN McFALL SCHOOL
- D. GOLDEN WEST SCHOOL
- E. SHASTA SCHOOL
- F. ST. ANTHONY'S SCHOOL
- G. MANTECA CHRISTIAN SCHOOL
- H. CALLA CONTINUATION HIGH SCHOOL
- I. LINCOLN SCHOOL
- J. MANTECA HIGH SCHOOL
- K. SEQUOIA SCHOOL
- L. YOSEMITE SCHOOL

- 1. CIVIC CENTER/SENIOR CITIZEN'S CENTER
- 2. LIBRARY
- 3. FIRE STATION 1
- 4. FIRE STATION 2
- 5. FIRE STATION 3
- 6. MANTECA ADULT SCHOOL
- 7. MANTECA HOSPITAL
- 8. EAST LAWN CEMETERY
- 9. CITY CORPORATION YARD, WATER TANK, & ANIMAL POUND

Source: City of Manteca, January 1986



MANTECA
CALIFORNIA
General Plan



J. LAURENCE MINTIER & ASSOCIATES
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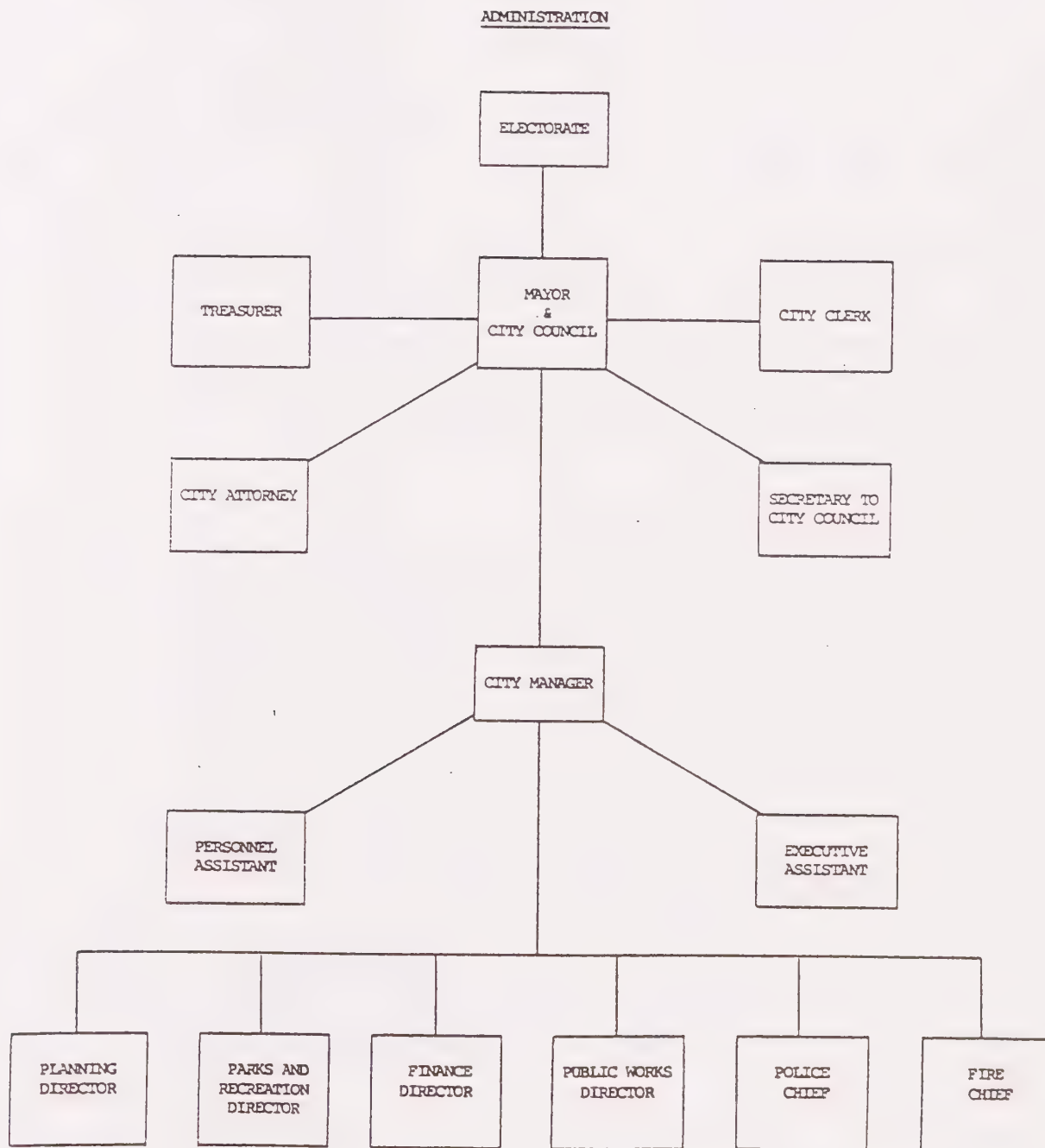
FIGURE VI-2. PUBLIC WATER SOURCES

• PUBLIC WATER WELLS (See Text for Discussion)

▲ WATER STORAGE TANKS

Sources: City of Manteca Public Works Department;
Lathrop County Water District, February 1986

CHART VI-1
CITY ORGANIZATION CHART



Recharge for the aquifers that Wells 6, 7, and 11 tap may occur partially in agricultural areas east of Manteca. Due to the potential for DBCP contamination, new wells should not utilize upper aquifers. In addition, all new wells should be cased and sealed to 100 feet below the surface to avoid surface percolation from urban areas (Kennedy/Jenks Engineers 1985).

The City's current plans for water supply are based on using groundwater as its sole source for meeting future demands. However, use of surface water supplies is being considered, and the City of Manteca has been notified by U.S. Bureau of Reclamation that it is eligible to receive an allocation of water from the New Melones Dam. The City of Manteca has begun meeting with other South San Joaquin County public agencies to develop an outline for a study to examine the feasibility of providing surface water to the south county area.

For analysis of the operation of the water system, determination of the water demands during periods of peak use is required. Since the records of water demand in Manteca are kept only on a monthly basis, data on maximum day and peak hour demands are not available. For master planning purposes, the peak hour water demand was estimated to be 1.75 times the maximum day demand. Water use fluctuates over the course of a day as well as seasonally. High demand periods occur during morning (7-10 a.m.) and evening (6-9 p.m.) hours. Demand rises sharply during the summer, with July being the peak demand month. Water demand averaged 7.3 million gallons per day (mgd) in 1985.

Peak use demand estimates were developed by the consulting engineers preparing the Water Master Plan (Kennedy/Jenks Engineers, 1985). The existing system does not meet the criteria for the developed peak hour demand of 18,040 gpm. The system needs increased pumping capacity, pipeline improvements to serve the area east of Highway 99, improved transmission main capability in the downtown area, and a telemetry system to monitor well facilities. Many new facilities and upgrading of existing facilities are recommended by the Master Plan, as summarized in this section.

The system currently needs additional wells with auxiliary engine drive totaling 2,033 gpm pumping capacity. Combining this additional pumping capacity with a peak hour flow of 2,000 gpm from the storage tank and 13,950 gpm existing pumping capacity, the peak hour demand could be met. The construction of Well 15 and the provision of an auxiliary natural gas engine in combination with the conversion of Well 12 to a 200-horsepower electric drive motor should provide this additional capacity. It is anticipated that these two improvements would add 2,650 gpm pumping capacity to the system. Wells 1, 2, and 6 should remain available for emergency situations until the City has sufficient supply to meet peak demands and emergency power outage situations.

TABLE VI-1
WELL PRODUCTION CAPACITY

<u>Well Number</u>	<u>Nominal Production Rate (gpm)</u>	<u>July 1984¹ Production (MG)</u>	<u>Average Number of Hours Operated (Hours/Day)</u>	<u>Assumed Maximum Day² Hours Operated</u>	<u>Estimated Maximum Day Production (MG)</u>
1	800	2.50	1.9	4	0.19
2	800	-0-	--	--	--
3	380	12.76	18.1	19	0.46
4	400	12.68	17.0	19	0.46
5	1,150	11.22	5.2	10	0.69
6	320	-0-	--	--	--
7	700	25.88	19.9	24	1.01
8	800	17.58	11.8	19	0.91
9	1,400	42.14	16.2	20	1.68
10	800	33.01	22.2	24	1.15
11	950	38.55	21.8	24	1.37
12	1,350	49.38	19.7	20	1.62
13	1,800	69.88	20.9	24	2.59
14	2,300	84.73			2.76
15 ³	<u>2,200</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Total	16,150	400.31	--	--	14.86 ⁴

¹ From pump records of July 1984.

² From review of individual well pressure charts for July 1984.

³ Well 15 was recently developed and is not currently in operation except for emergency fire flow by manual operation.

⁴ 14.86 mgd = 10,300 gpm.

Source: Kennedy/Jenks Engineers, 1985.

In an effort to reduce sewer flows, the City's Water Conservation Committee has recommended that the City require low-flow shower headstand and low-flush toilets in new developments and pursue the use of surface waters through arrangements with the South San Joaquin Irrigation District and the Oakdale Irrigation District.

The City's water distribution systems includes 12-inch pipes with 0.5 mile spacing and 16-inch arterial transmission mains. The water distribution system in downtown Manteca, however, consists of a dense grid of 6-inch and smaller lines.

The distribution system requires immediate improvements. These include a 16-inch main extending across Highway 99 in Yosemite Avenue to provide looped service to the area east of Highway 99. In addition, a 12-inch feed from the storage tank to the downtown commercial area is needed. A second 12-inch line to the downtown area from the 16-inch main in Center Street was also recommended in the Water Master Plan (Kennedy/Jenks Engineers 1985).

A system to remotely monitor the operation of well facilities was recommended in the Master Water Plan. This system included a phasing program to be implemented over several years.

As of January 1986, The City's water system had 12,561 metered connections. Approximately 80 percent of the connections are residential. The other 20 percent are commercial or industrial accounts. At the present time water consumption information by type of customer is not available. When the City's billing system is computerized, a better estimate of water consumption by user type will be available. At that time, the following estimates should be reviewed and updated.

For planning purposes, the City of Manteca is currently (April 1988) using the following water use estimates:

Residential	
150 gallons/person/day	
Commercial	
4,000 gallons/acre/day	
Industrial	
5,500 gallons/acre/day	

The City has set the following minimum acceptable fireflow rates:

<u>Land Use</u>	<u>GPM</u>
Office	1,000
Light industrial	1,250
Single family residential	750
Multi-family residential	1,000
Commercial	1,250
Hotel	1,500
Convention Center	1,500
School	1,500
Motel	1,500

These flow requirements must be maintained over a 2-hour period. The City requires all buildings over 6,000 square feet to have a sprinkler system. Light industrial buildings may use two-hour fire walls instead of sprinkler systems.

The City's water system is financed by monthly service charges and water meter fees. Water meter fees as of June 1986 are as follows:

<u>Line Size</u>	<u>Water Meter Fee</u>
3/4 x 5/8" (Typical residential)	\$ 2,222
1"	2,909
1½"	4,015
2"	5,519
3"	9,377
4"	13,348
6"	36,250
8"	49,749

In addition, developers are required to bear the cost of water main extensions and to dedicate utility easements to the City. Master Plan main sizes are installed by developers, and reimbursement of excess cost (the difference between master plan mains and normally-sized mains to serve the property) is based on the City's Utility Line Reimbursement Policy.

The Lathrop County Water District provides well water for approximately 1,452 service connections. Of these connections, approximately 1,422 are residential, 20 are commercial, and 10 are industrial. Although the Lathrop water system has six wells, only two wells are currently operational. The capacities of the two operating wells are listed below:

<u>Well Number</u>	<u>Capacity</u>
#4	900 - 1,000 gpm
#5	1,200 gpm
#6 (new)	1,400 gpm

The system includes one 50,000-gallon storage tank that is elevated 90 feet. Line sizes range from 2-12 inches. There are approximately 13,000 feet of 12-inch main line.

The Lathrop County Water District has received a loan from the State under the Safe Drinking Water Act for a new well and a 400,000-gallon storage tank. The new well, Well No. 6, is expected to begin operation around May 1, 1986.

In addition to the Manteca and Lathrop County Water District water systems, several small water systems have been developed in the area. The Raymus Village Maintenance District system obtains its water supply from wells and serves the Raymus Village subdivision. The Spreckels Sugar Water System system obtains its water supply from wells. The system serves only the Spreckels Sugar Refinery.

SEWAGE COLLECTION AND TREATMENT

The City of Manteca owns and operates the major sewage collection and treatment system in the Planning Area. In addition to providing sewer service within the city limits, three small residential areas outside of the corporate limits are served by the City's system. These unincorporated areas are located east of Airport Way, north and south of the Yosemite Avenue intersection; north of Louise Avenue, east of Highway 99 (Raymus Village subdivision); and along Milnar and Raylow Avenues north of Yosemite Avenue, south of North Street. Some areas within the city are still served by septic systems, but a gradual transition to City sewer service is underway. The Lathrop area is currently served by septic systems, and the Spreckels Sugar Refinery provides its own wastewater treatment.

Manteca's system includes a network of gravity sewers from six to 36 inches in diameter, 8,600 feet of 8-inch force main, two pump stations, and treatment facilities. Figure VI-3 shows the major elements of the sewage collection and treatment system.

The 8,600 feet of 8-inch force main extends from the Raymus Village pump station to the east side of Highway 99 at Louise Avenue. The second pump station is located on Union Road between North and Center Streets.

The following table presents the City of Manteca's sanitary sewer design data:

TABLE VI-2

SEWER DESIGN CRITERIA

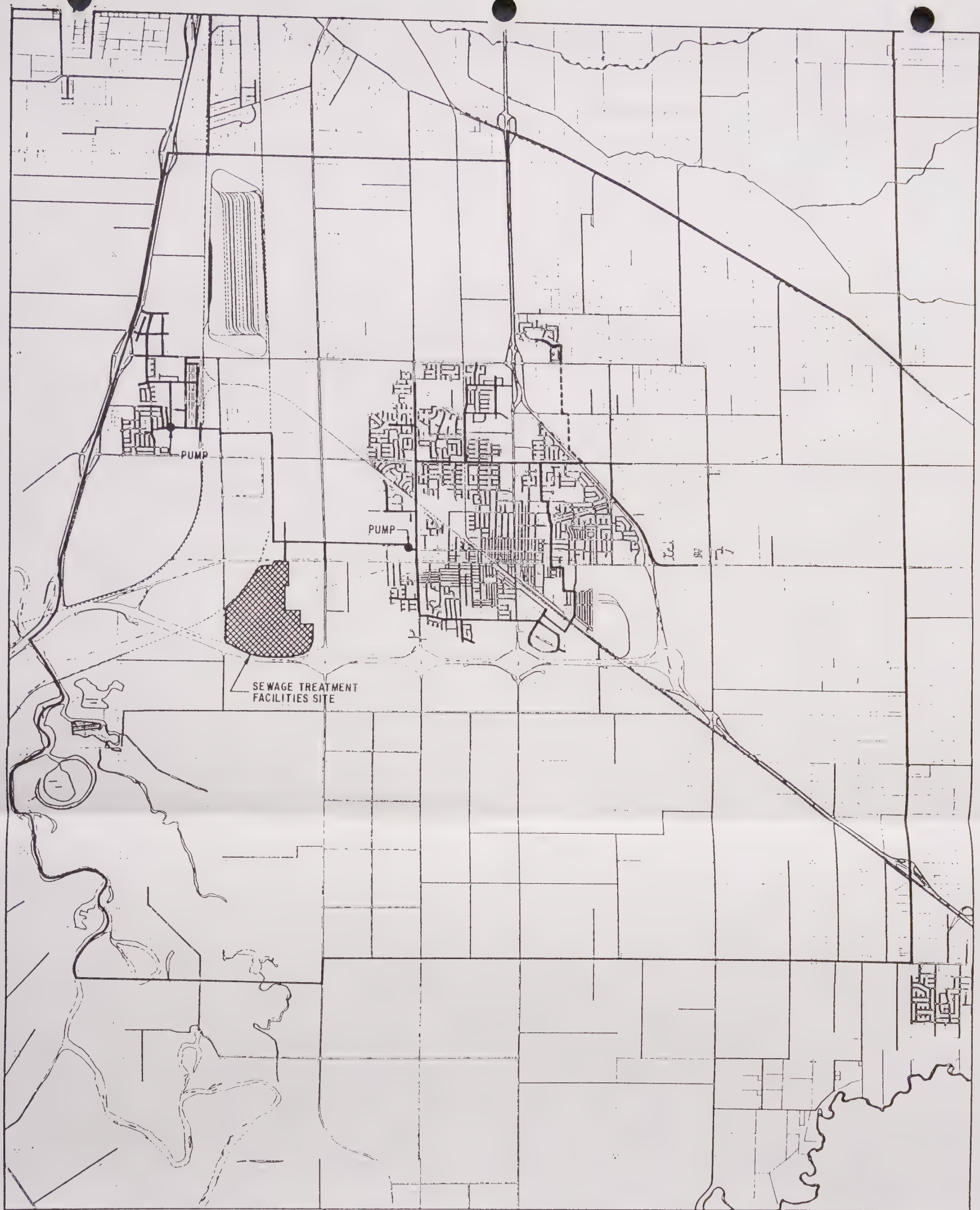
<u>Land Use</u>	<u>Average Flow Rates</u>	<u>Peak Flow Rates</u>
Residential	83 gallons/capita/day	
Commercial	3,400 gallons/acre/day	10,000 gallons/acre/day
Industrial	4,700 gallons/acre/day	13,500 gallons/acre/day

Source: City of Manteca Public Works Department

Daily peak flows for commercial and industrial uses are roughly 2.9 times the average daily flow. The estimated inflow/infiltration rate for future system extensions is 530 gallons/acre/day.

The City's wastewater treatment plant is located west of Airport Way and south of Yosemite Avenue. The existing facility provides primary treatment with contact stabilization and includes effluent disposal fields. Maximum flow capacity of the treatment plant prior to its recent expansion was 3.4 mgd.

A building moratorium was imposed in 1985 when sewage flows began to exceed capacity at peak periods. Based on a recalculation of sewer treatment capacity by the City's engineering consultants, the City of Manteca was allowed to temporarily lift its building moratorium in 1986, and to issue a limited number of commercial and residential building permits.



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0 1/2 1 2
Scale in Miles

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FIGURE VI-3. SEWER SYSTEM

MAJOR SEWER MAIN-8 INCHES
(not all 8-inch internal lines included)

FORCED MAIN

Sources: City of Manteca Public Works Department;
San Joaquin County Public Works Department,
February 1986

During the summer of 1987, an increase in treatment capacity to 5.45 mgd was completed (Phase I). The modified treatment plant provides complete secondary treatment. The new facilities include: biotowers (trickling filters), increased aeration capacity, secondary settling, and chlorination and dechlorination. Solids treatment facilities include anaerobic digestion and sludge drying beds (Gossett pers. comm.). The effluent will be discharged to either irrigation or the San Joaquin River. The City plans to extend an outfall from the treatment plant to the San Joaquin River south of the Southern Pacific Railroad tracks and north of Oakwood Lake Resort.

With this expansion, the Lathrop area, currently served by individual septic systems, can be connected to Manteca's system. The Lathrop County Water District has been allotted 0.8 mgd of treatment capacity in the expanded facilities.

The additional 750,000 gpd of Phase I treatment capacity has been allocated to future growth (i.e., 1987-1990) according to the following formula:

Residential	60%
Commercial	18%
Industrial	7%
Schools	5%
Reserve	10%

The 450,000 gpd allocated to residential growth will allow for approximately 1,775 dwelling units.

The ultimate expansion capacity of the existing plant is 6.95 mgd. There are plans for a Phase II expansion to the ultimate capacity. This expansion, which would provide treatment capacity for development late into the 1990s, should be completed by 1990. There is also space on the existing site, if some irrigation facilities are removed, to install another treatment plant. The capacity of a new plant would depend on its design.

Sewer service is financed by a combination of monthly service charges and connection fees. The residential connection fee is \$2,222 per unit and the commercial connection fee is \$120 per fixture unit. In addition, developers are required to bear the cost of service extensions. Infrastructure required to serve a development, including sewer lines, must be located either within public rights-of-way or public easements dedicated to the City by the developer. If the City requires installation of utility main lines larger than are necessary to serve a proposed development, the developer is eligible for reimbursement of excess costs in accordance with the City's Utility Line Reimbursement Policy (Hulsey pers. comm.).

Spreckels Sugar Wastewater Disposal

Spreckels Sugar Refinery uses percolation ponding and spray irrigation to treat industrial wastes. A septic system is utilized for domestic sewage from the Spreckels facility.

On-site disposal of industrial wastes at the Spreckels Refinery results in odor problems which extend beyond the Spreckels property. In the last 10 years odor problems have, however, been significantly reduced. The sugar refinery is a seasonal operation and, as a result, spray irrigation of industrial wastes is facilitated because of dry weather application.

Industrial and Hazardous Waste Management

The Public Works Department of the City of Manteca is responsible for enforcing Manteca's industrial waste ordinance, Article IV, Chapter 14, Manteca Municipal Code. The ordinance prohibits discharge of specified materials including hazardous, toxic or radioactive water into the City's wastewater collection, transmission, treatment, conveyance or disposal facilities unless an industrial wastewater permit is granted. To receive a permit, dischargers must specify the nature and quantity of the wastes, describe their operations, and agree to various conditions, including monitoring of discharges, and allowing the Department access to facilities for inspection. Dischargers must also comply with all federal and state pre-treatment requirements as well as any other federal and state requirements that are more stringent than Manteca's.

Normally, an industrial wastewater permit is applied for at the time of application for a building permit. Treatment plans and other operations are evaluated by engineering consultants hired by the City. The Public Works Director makes the ultimate determination concerning permit issuance. Any significant change in operation under an existing permit must be reported to the Public Works Department.

STORM DRAINAGE

In January 1987, Raymond Vail and Associates completed a Storm Drainage Master Plan for the City of Manteca. The plan documented existing deficiencies in the City's drainage system and identified criteria and recommendations for upgrading the existing system and providing for the drainage needs associated with new development. The major emphasis in the plan is on continued use and development of detention basins.

Storm drain basins act as detention ponds to reduce the required capacity of downstream drains, laterals, and culverts. The basins are located along storm drain lines, which allows the basins to fill as the lines become overfull. The provision of water storage prevents downstream flooding by reducing the volume of water released into downstream drainage facilities.

Localized Drainage Problems

The Storm Drainage Master Plan identified a number of problem areas in the city which frequently flood. These areas are identified and described below.

Sierra Street - Alameda Street

This area consists of approximately 95 acres of residential development. Flooding in this area appears to be due to two conditions: Drain 4 is overloaded and cannot handle additional flows; and the 600 feet of 24-inch line in Sierra Street cannot carry the flow from the upstream 30-inch line.

Hildebrand Park - Garfield Avenue

Drainage from the Hildebrand area, approximately 20 acres, is collected in a series of 12-inch drainlines. These lines only have the capacity to carry approximately 50 percent of the computed runoff. Compounding the problem is Drain 4's existing overload during peak flow, restricting flows from the Hildebrand area from entering Drain 4.

Nevada Street - Virginia Street

This area experienced flooding problems even during minor storm runoff. To alleviate the problem, an overflow bypass line was constructed between El Capital Avenue and El Portal Avenue to allow flow that backs up the Nevada Street-El Capitan line to overflow to the El Portal line. This bypass has not been entirely successful and flooding still occurs in the area. Drain 5 is greatly overloaded and thus prevents flow from the 15-inch line from entering the drain.

Roosevelt Avenue - Mary Lane

This area comprises approximately 80 acres to the east, extending as far as Charles Avenue. The 24-inch pipe enters Drain 4 on Roosevelt Avenue halfway between Mary Lane and North Street. In addition to the line being undersized for serving the drainage area, drainage is unable to enter the overloaded Drain 4.

Elmo Court at Powers Avenue

This local area is subject to frequent flooding apparently caused by its low elevation and the presence of inverted siphons across Powers Avenue without a direct connection to Drain 4. A connection to Drain 4 would not be a permanent solution, however, since Drain 4 is already overloaded.

Miscellaneous Areas

Yosemite Avenue at Fremont and Maple Avenue and Mikesell Avenue at Fremont are subject to ponding and flooding due to the absence of storm drainage facilities at these intersections. Inverted siphons, where they exist, are incapable of conveying flows of even minor magnitude because of undersizing and clogging.

The Maple Avenue - Southern Pacific Railroad area also experiences periodic flooding.

Flooding occurs along Drain 4 between Sherman and Maple Avenue. This is caused by downstream overloading of Drain 4 and backup of waters in the drain, preventing runoff from entering.

Existing Drainage Facilities

The South San Joaquin Irrigation District operates drainage facilities that pass through Manteca and carry a portion of the City's drainage. Because of topography, drainage facilities generally follow an east to west alignment. In some instances where subdivisions have developed near irrigation laterals, drainage pumping stations have been installed in lieu of long trunk lines to drains. Water from the South San Joaquin Irrigation District, along with drainage piped by the City, flows west into French Camp Canal, which eventually flows into French Camp Slough. Storm drainage is gravity discharged from the Planning Area to French Camp Canal. Existing road and railroad crossings of the Canal are, however, undersized and will require replacement to accommodate peak design flows from the study area. The San Joaquin delta is the ultimate destination of drainage carried by French Camp Slough. Figure VI-4 shows the major elements of the storm drainage system.

The City assesses a drainage fee of \$2,360 per gross acre. This fee is subject to change based on data in the Engineering News Record Construction Cost Index. Originally, drainage fees were not intended to cover the cost of land for storm drainage basins. It was anticipated that land purchased for park use would also function as a drainage detention area. Parks have been developed in conjunction with storm drain basins, but these parks have limited recreational value due to sloping sides and periodic inundation.

The use of drainage fees for site acquisition would limit the funds available for the development of drainage basins. The original intent of the drainage fee was to fund the construction, or to reimburse the costs for construction of drainage facilities. In addition to unanticipated land acquisition costs, there would be annual maintenance costs per drainage basin; a cost estimate, however, is difficult to calculate under the present policy (Hulsey pers. comm.).

LAW ENFORCEMENT

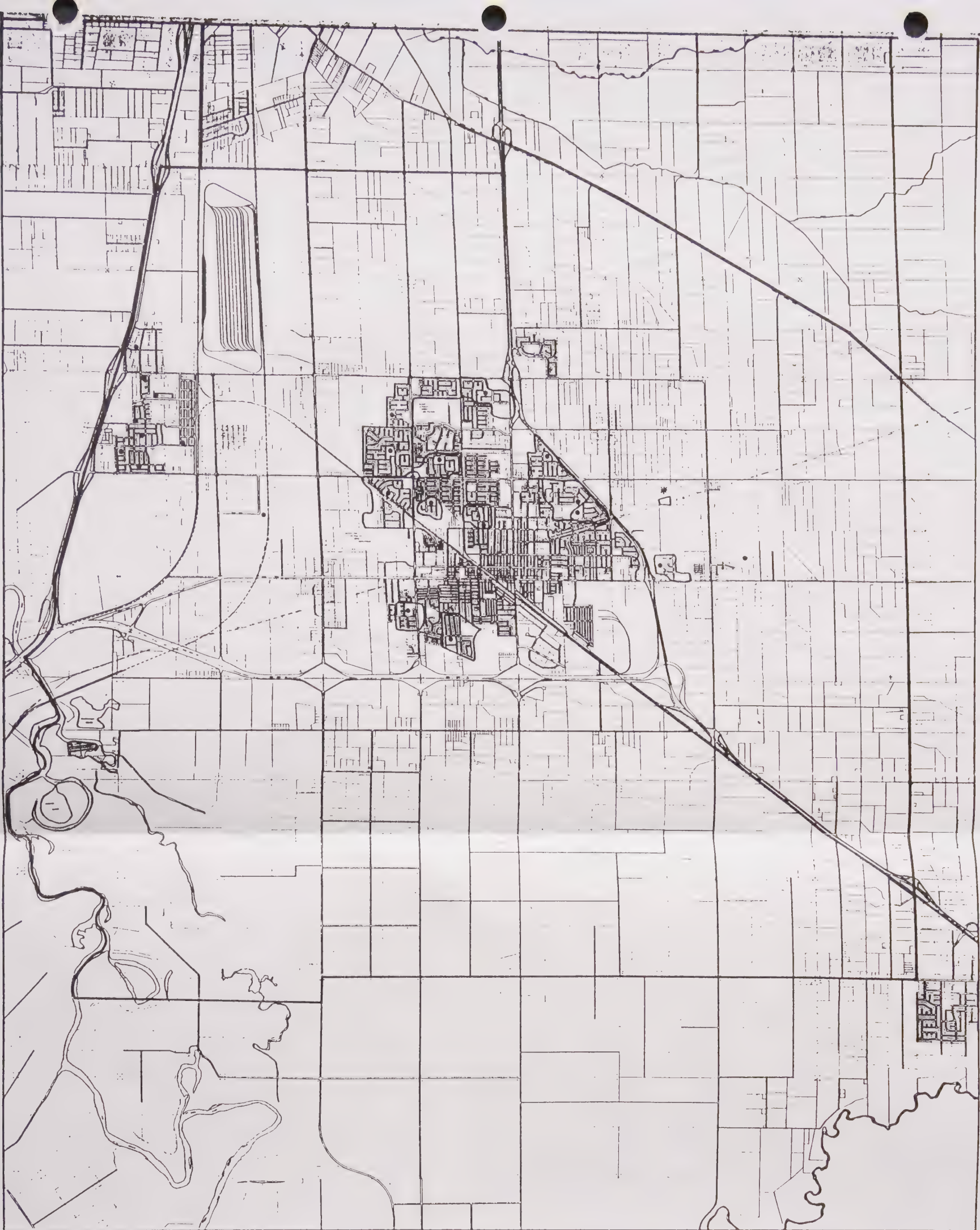
The Manteca Police Department is located adjacent to City Hall at 1001 West Center Street. The department provides police protection within the City limits. The average level of staffing is one officer per patrol unit. The number of patrol beats ranges from two to four, depending on workload. All police calls are handled from the central station; the average response time is 10 minutes. Priority 1 calls, where life endangering or other serious crimes are in progress, have an average response time of two to three minutes.

The Manteca Police Department currently (July 1987) has a total staff of 58, 40 of whom are sworn personnel, including 31 patrolmen and five patrol sergeants. The Police Department also employs five full-time community service officers (non-sworn), who respond to non-emergency calls. The existing staff/population ratio is approximately 1.1 officer for 1,000 population.

The City of Manteca also sponsors a Crime Watch program and maintains a reserve police officer program.

In the past it has been difficult for the department to generate adequate data to scientifically evaluate specific aspects of service provision. However, a computer was recently purchased for the department. Computerization will facilitate the data gathering process. A scientific evaluation of response time and committed patrol time (the amount of time an officer is engaged in answering service calls and immediate follow-up) will facilitate the projection of future police personnel requirements.

Law enforcement in the unincorporated area is the responsibility of the San Joaquin County Sheriff's Department. The sheriff's department maintains a beat centered in the Manteca area which is designated as District 7. District 7 also includes Lathrop, Ripon, and Escalon. The Lathrop area has a community car program, which means that a patrol car is in the area for 10 hours each day. The following table shows the shifts for District 7 at the highest level of staffing:



MANTECA CALIFORNIA General Plan



0 1/2 1 2
Scale in Miles

J. LAURENCE WINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

FIGURE VI-4. STORM DRAINAGE SYSTEM

- EXISTING RETENTION BASIN
- * PROPOSED RETENTION BASIN
- ◊ DRAINAGE ZONE

Sources: City of Manteca Public Works Department;
San Joaquin County Public Works Department,
February 1986

<u>Shift</u>	<u>Full Staffing Level</u>
6 a.m. - 4 p.m.	1
8 a.m. - 6 p.m.	1 ¹
4 p.m. - 2 a.m.	2 ¹
9 p.m. - 7 a.m.	2 ¹

¹ These two officers work together.

The Sheriff's Department has law enforcement power within incorporated cities as well as outside corporate limits. Coroner's service is provided throughout the County by the Sheriff's Department. The California Highway Patrol (CHP) handles all traffic-related incidents in the unincorporated County area. This includes issuing traffic citations, and investigating car accidents and car thefts. There are 65 CHP officers serving the Stockton area, which includes Manteca.

FIRE SERVICES

The Manteca Fire Department provides fire protection within the City limits and responds to emergencies in outlying areas when other departments request assistance. There is no existing automatic aid agreement with the Manteca-Lathrop Fire District. Table VI-3 summarizes the personnel and equipment available for response at each fire station in Manteca. Figure VI-1 shows the locations of the fire stations.

Currently, the average response time to fire calls is three minutes. The major exception to this average is the Southland Mobile Home Park, which has a response time of approximately five minutes. The breakdown of typical calls for service is 70 percent for emergency medical services and 30 percent for fire and other emergencies. All department staff are qualified as Emergency Medical Technicians. The Fire Department, in conjunction with the district ambulance service, has had one of the best life save ratio in an eight county area for the past three years. Table VI-4 summarizes the fire department responses by type for the 1981-84 period.

The department currently (July 1987) has a total staff of 35, including 31 line personnel, 3 staff officers, and one secretary. There are also currently 10-12 reserve fire fighters. Plans to increase the reserve staff to 18 are underway. Fire fighters work 24-hour shifts and the staff officers work 40-hour weeks. The department tries to maintain staffing levels of one fire fighter per 1,000 residents, but this ratio is flexible.

There are plans to move Station 2 to City-owned land adjacent to the golf course on Union Road. At the present time this facility has an inadequate parking area and no room for expansion.

Public protection classifications are designated by the Insurance Services Office (ISO). The most recent ISO rating procedure evaluates three principal features of fire protection within a community. These features and their weight of importance are: water supply (40 percent); fire department (50 percent), and communications (10 percent). Class 10 usually indicates that no fire protection is provided, whereas Class 1 indicates a high fire fighting capability. The Manteca Fire Department maintains an ISO rating of 5.

In addition to fire suppression, the fire department's services include: building inspection, fire prevention, public education, emergency medical services, fire hydrant maintenance, hazardous materials response, nuisance (weed) abatement, cardio-pulmonary resuscitation (CPR) instruction, training programs, and city communications equipment.

TABLE VI-3
FIRE PERSONNEL AND EQUIPMENT
MANTECA FIRE DEPARTMENT
July 1987

<u>Station 1</u> (290 S. Powers)	<u>Station 2</u> (740 W. Center)	<u>Station 3</u> (375 W. Louise)
Chief	Captain	Captain
1 Assistant Chief/Fire Prevention Officer	2 Fire Fighters/Engineers	2 Fire Fighters/Engineers
1 Deputy Fire Prevention Officer	1 Engine Company	1 Engine Company
1 Fire Fighter/Inspector	1 Grass Fire Engine	
1 Assistant Chief/Training Officer		
1 Secretary		
1 Battalion Chief		
4 Fire Fighters/Engineers		
1 Engine Company		
1 Rescue Squad		
1 Reserve Engine Company		

Fire Department Staffing

Chief	1
Assistant Chiefs	2
Battalion Chiefs	3
Deputy Fire Prevention Officer	1
Fire Prevention Inspector	1
Captains	6
Fire Fighters/Engineers	15
Fire Fighters	5
Secretary	<u>1</u>
Total	35

TABLE VI-4**MANTECA FIRE DEPARTMENT RESPONSES
1981-1986**

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Structure fires	73	85	81	91	117	99
Vehicle fires	48	62	51	51	63	66
Medical emergency	581	655	617	746	966	1,094
False alarms	10	11	9	14	18	8
Fire prevention ¹	9,539	8,010	7,300	7,744	8,788	12,267
Miscellaneous	<u>231</u>	<u>198</u>	<u>199</u>	<u>246</u>	<u>295</u>	<u>323</u>
Totals	10,530	9,053	8,296	8,938	10,326	13,913

¹Fire prevention includes: inspections, reinspections, public talks and classes, system tests, weed and nuisance abatement, plan checks, and business licenses.

Source: City of Manteca Fire Department

The City of Manteca has a sprinkler ordinance which requires all buildings over 6,000 square feet (sf) to be sprinkler-equipped. Light industrial uses are permitted to use two-hour fire walls instead of sprinkler systems in some cases. Building fire protection measures into structures has allowed the Fire Department to remain small, yet provide adequate service. The Fire Department works with the building department to check plans for fire sprinklers, emergency vehicle access, exits, and fire extinguisher placement, and Fire Code compliance.

The Manteca-Lathrop Rural County Fire District provides wildland and structure fire protection and responds to all emergencies in the unincorporated area around Manteca. The service area of the district, shown in Figure VI-5, is approximately 100 square miles.

Three stations are staffed on a 24-hour basis by the fire district. The headquarters station, Station 1, is located at 800 J Street in Lathrop. Station 2 is located at 22701 Union Road, and Station 3 is located at 9121 Lathrop Road. The district maintains an ISO rating of Rural Class 6 in areas where water is available.

Potential fire protection problems result when residential development is scattered throughout rural areas or enclaves of rural residential houses develop. The cost of providing adequate fire protection to these areas is prohibitive.

SCHOOLS

As of January 1, 1986, the Manteca Unified School District had 10 schools that provided K-8 education services to the Manteca area: French Camp, Golden West, Lathrop, Lincoln, Neil Hafley, New Haven, Nile Garden, Sequoia, Shasta, and Yosemite. In August 1987, the district opened the George McParlnad School with portable buildings. A permanent structure is being constructed at the site.

Three district schools provide 9-12 education services: Manteca High, East Union High, and Calla Continuation High School. The school district boundaries are shown in Figure VI-6 and the locations of the schools are shown in Figure VI-1. Table VI-5 presents a summary of Manteca Unified School District data. In 1986, average class size for both grades K-8 and 9-12 was 30 students. The continuing education program had approximately one teacher per 18 students and special education programs had one teacher per 12-14 students.

For a number of years, the school district has attempted to mitigate the impact of increasing student population by placing portable buildings on existing school sites. According to the Superintendent, however, in 1988 this is not a viable solution. The core facilities are inadequate to accommodate additional students on the campuses.

One option for financing capital improvements is through state funding. State funds are allocated based on instructional space requirements per student. It is difficult for Manteca Unified School District to qualify for state funding because the district-owned portables are counted as instructional space, and new portables are purchased with impaction fees to provide space for the growing student population. Even if the district does

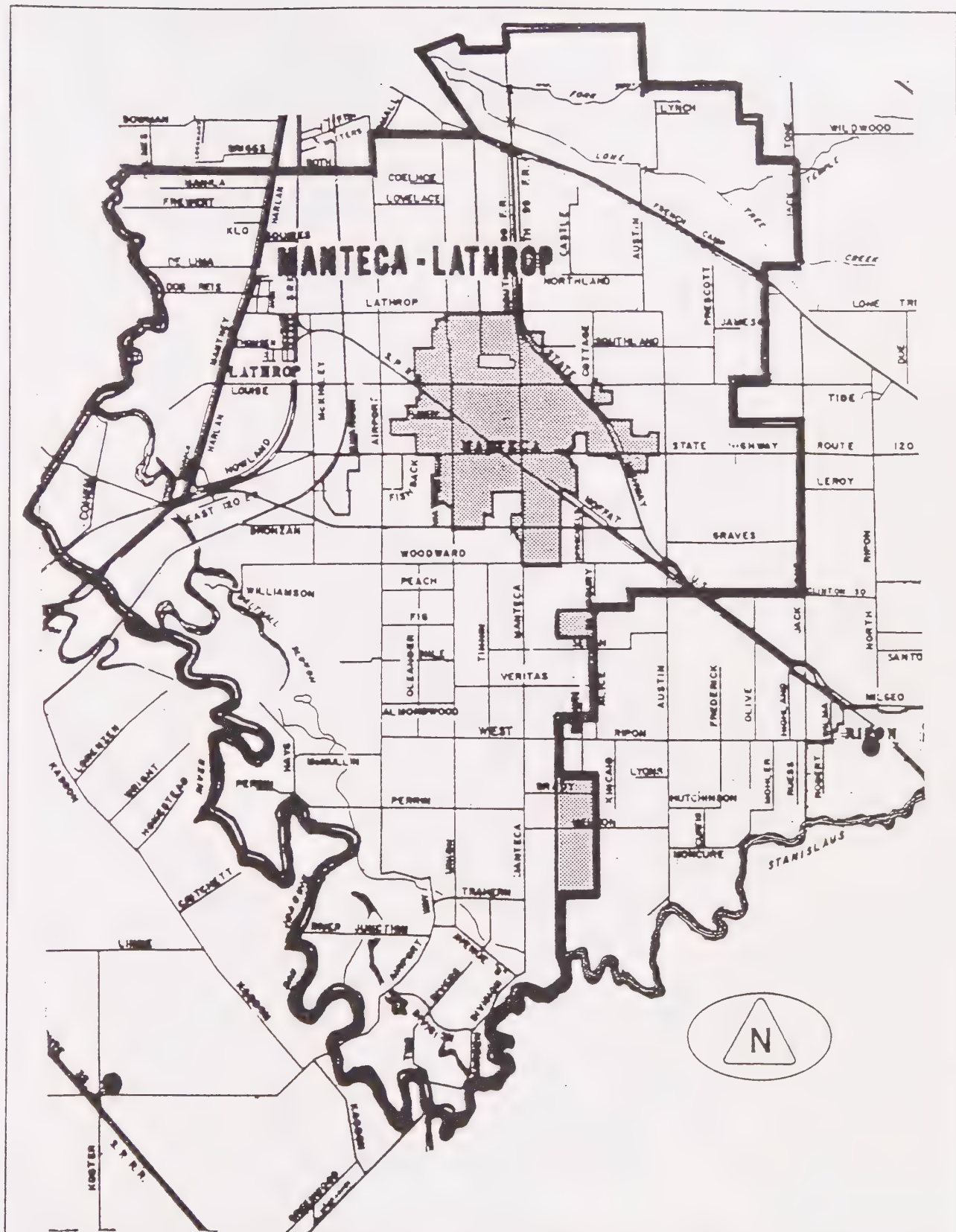


FIGURE VI-5. MANTECA - LATHROP
RURAL COUNTY FIRE DISTRICT



AREA OUTSIDE FIRE DISTRICT



SPHERE OF INFLUENCE



MANTECA - LATHROP RURAL COUNTY FIRE DISTRICT BOUNDARY

Source: San Joaquin County LAFCO, 1983

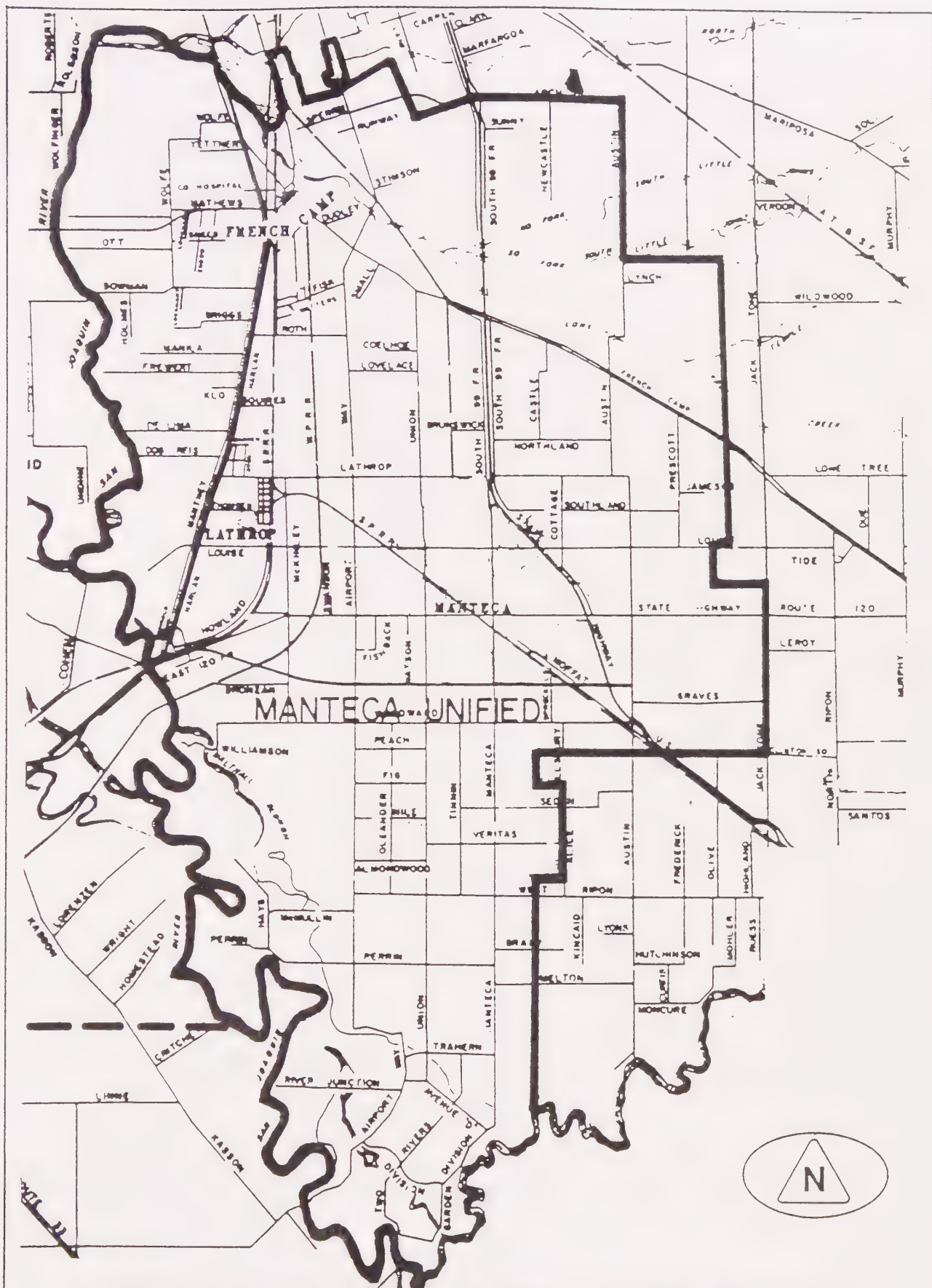


FIGURE VI-6. MANTECA UNIFIED SCHOOL DISTRICT

— MANTECA UNIFIED SCHOOL DISTRICT BOUNDARY

Source: Manteca Unified School District, 1986

TABLE VI-5
SUMMARY OF MANTECA UNIFIED SCHOOL DISTRICT DATA

	<u>School</u>	<u>Grade Level</u>	<u>May 31, 1985 Enrollment</u>	<u>Permanent Classrooms</u>	<u>Portable Classrooms</u> ¹	<u>Capacity</u>	<u>Enrollment Trends</u>
	French Camp	K-8	837	25	8	900	Stable.
	Golden West	K-8	767	25	6	900	Stable.
	Lathrop	K-8	936	24	8.5	900	Currently stable, but expected to increase when sewer hook-ups become available.
	Lincoln	K-8	714	23	8.5	900	Stable.
	Neil Hafley	K-8	818		34	900	This area is almost built-out. Some students are being bussed to Golden West, but when the new school planned for this area is complete, bussing will no longer be necessary.
VI-17	New Haven	K-8	799	18	12	900	This is a growth area. Approximately 150 additional students can be accommodated with portable classrooms.
	Nile Garden	K-8	800	22	8	900	Presently stable, but may become a growth area.
	Sequoia	K-8	736	19	10	900	This is a growth area, but expected school age children can be accommodated.
	Shasta	K-8	847	24	6	900	Stable.
	Yosemite	K-8	346	11	3	400	This is a growth area. The school is presently at capacity, but an additional 1-2 years of growth can still be accommodated.
	East Union High School	9-12	1,266	25	21	1,500	The high schools do not have existing capacity problems. Both sites have space available for - additional portable classrooms, which are expected to accommodate the students generated by growth for at least 10 years.
	Manteca High School	9-12	1,297	43	2	1,500	
	Calla Continuation High School	9-12	189	5	10	N/A ²	N/A ²

¹ The number of portable classrooms includes those under construction that are expected to be in use by August 1986.

² N/A = Not available.

Source: Manteca Unified School District

receive state funds, there would be about a three-year lag from the time the district qualified for funding until a new school was completed. Some growth projections are included in the formula used to determine which districts receive state funding. The main problems associated with high enrollment (which is facilitated by the use of portables) is that restroom and cafeteria facilities are limited. Students must eat in shifts, and as the enrollment increases, portable restrooms will be required.

The continued addition of district-owned portable classrooms will postpone the date when state funding will be available for new schools. The City has the option of drafting an ordinance that would require developers to dedicate school sites and help to fund school construction.

When trying to project the number of students that a school district can expect due to new development, the most accurate forecasting method is based on each district's own experience. Current Manteca School District student generation has fluctuated radically, from 0.3 to 0.8 per dwelling unit. In Fall of 1987, it was close to 0.8. In the past, the district has experienced very low student generation rates from multi-family units. Based on this experience, a student generation rate of 0.17 per multi-family unit is assumed.

In the next six to seven years, the need for three new primary schools and one new secondary school is projected. The potential primary school sites are located in three general areas northwest, southwest, and northeast of Manteca's existing urban development. Manteca may qualify for a new high school in the near future.

The School District has purchased a 50-acre site approximately one-quarter mile south of Yosemite Avenue and a quarter mile east of Airport Way for Sierra High School. The School District is looking toward construction of the new high school by 1990. The school district has also purchased two elementary school sites for future schools, and is in the process of purchasing an additional elementary and an additional high school site.

LIBRARY SERVICE

Library service is provided within the Planning Area by the Stockton-San Joaquin Public Library System. The existing main library, which is the only library in Manteca, has about 69,000 volumes and serves a population of approximately 39,000. The building is an estimated 15,000 sf, which is considered adequate to house 60,000 volumes. A high circulation (approximately 12,000 volumes) alleviates serious space problems. The standard used by the library system for estimating additional library space requirements as population growth occurs is .6-.7 sf per capita.

A Draft Libraries Master Plan was recently submitted to the San Joaquin County Board of Supervisors, but has not yet been approved. The draft plan recommended, if Manteca continued to grow to the north (toward Lathrop), that a new branch should be constructed to serve the north Manteca/Lathrop Way area. A minimum floor area of 6,000 sf was recommended for this proposed branch (Brown pers. comm.).

SOLID WASTE DISPOSAL

The City of Manteca provides refuse collection once a week for residential customers, and on an "as needed" basis for commercial customers. This service is provided only within the existing city limits. The solid waste currently generated by Manteca amounts to an estimated 8,255 cubic yards per month, or 99,060 cubic yards per year. This is approximately .25 cubic yard per person per month. Funding for the waste removal service is provided through the municipal billing of service users (Hulsey pers. comm.).

The City of Manteca deposits refuse at the County transfer station on Lovelace Road between Union Road and Airport Way. San Joaquin County has a contract with the City for refuse transfer. At the transfer station, recycling of auto parts, metals, cardboard, and some wood products is carried out, but is limited by space constraints. From the transfer station, the bulk of the refuse is hauled to Foothill Landfill, which is a privately owned and operated facility under County contract. An estimated 715,000 cubic yards per year of refuse are handled at the Foothill Landfill, which has a life expectancy of at least 50 years (Horton pers. comm.). The City of Manteca contributes approximately 14 percent of the yearly refuse volume handled at this landfill.

In the unincorporated portion of the Planning Area, residential solid waste is collected by a franchise under exclusive contract with the County. Commercial and industrial solid wastes are collected on a competitive basis.

GAS AND ELECTRIC SERVICE

Electric and natural gas services are provided to the Planning Area by Pacific Gas and Electric Company (PG&E). The financial responsibility for the utility extensions is determined by Gas Rules 15 and 16, and Electric Rules 15.2 and 16 which are available from PGandE (Parker pers. comm.).

The largest users of gas and electric services in the Planning Area are Indy Electronics, Spreckels Sugar Amstar, Libby Owens Ford, (a glass manufacturer), J.R. Simplot (a fertilizer manufacturer), and Ekert Cold Storage Company.

The peak period is standard throughout the PG&E system. Peak Period A occurs from May 1 - September 30 between 12:30 p.m. - 6:30 p.m. Monday - Friday (excluding holidays). Peak Period B occurs from October 1 - April 30 between 4:30 p.m. - 8:30 p.m. Monday - Friday (excluding holidays). As growth occurs in Manteca, new substations will need to be sited and existing substations will require enlargement.

COMMUNICATION SERVICES

Telephone service is provided in Manteca by Continental Telephone. Due to growth in the Manteca area, some customers had party line service prior to June 1985. There were some phone service problems when a new switch was being installed during May and June 1985, but since then phone service has improved. Continental Telephone is not aware of any existing service problems.

Continental pays for the first 700 feet of cable and the first 300 feet of service drop for line extensions. After these extensions, the customer is charged \$1.10 per foot. Connection fees are \$40 for residential customers and \$60 for business customers (Shepley pers. comm.).

Western Union maintains an office at 1155 E. Yosemite Avenue in Manteca.

The Manteca News and the Manteca Bulletin are the two local papers with the largest circulation in Manteca.

A radio station, KSJQ, is located at 8911 Brady Road.

MEDICAL SERVICES

Manteca Hospital, located at 1205 East North Street, is the only hospital serving the Manteca area. In 1983, the hospital had 10,443 patient-days. The hospital has a total of 49 beds, so there was a 58.3 percent utilization rate. The 49 beds include: 40 medical-surgical beds, five prenatal beds, and four intensive care beds.

Health care planning for the Manteca area is provided by the South San Joaquin Health Systems Agency. According to health care planners, the optimum hospital bed utilization rate is between 80-85 percent. The 15-20 percent leeway ensures an adequate number of beds. Since Manteca Hospital's utilization rate is below this optimal level, the existing hospital could easily provide medical services for an increased number of residents in the area (Chisholm pers. comm.).

Using the January 1985 population estimate of 32,545, and assuming that only residents of the City of Manteca use the hospital, an estimated .32 day per person was spent in the hospital. Using the .32 day per person figure, a total population of between 44,715-47,506 persons could be served by the Manteca Hospital. These figures indicate that the Manteca Hospital has the capacity to adequately serve an additional 12,170-14,961 residents. Additional beds of specific types may, however, be necessary depending on the age group of new residents (Chisholm pers. comm.).

Saint Joseph's Hospital of Stockton is currently developing a new medical complex in Manteca on a 35-acre site just east of the Yosemite Avenue-Airport Way intersection. The complex will include a hospital (St. Dominic's Hospital), out-patient facilities, an urgent care center, and medical offices.

Manteca has two skilled nursing facilities. Manteca Convalescent is located at 410 E. Wood Street, and Palmhaven Convalescent is located at 469 E. North Street.

Manteca Ambulance, located at 111 South Grant Avenue, is the only ambulance service in the City. Three cars are available for response from the ambulance service. These ambulances are usually more than adequate to serve the city. Occasionally, a cover vehicle from Ripon is required. The first ambulance available for dispatch is always staffed with one Emergency Medical Technician (EMT) and one Paramedic. Subsequent ambulances may, however, be staffed with two EMTs.

FINDINGS

- o As growth occurs, additional wells will need to be developed. Older wells with existing water quality problems need to be abandoned or rehabilitated. The City of Manteca will need to seriously consider supplementing groundwater supplies with surface water supplies. The City of Manteca is eligible to receive a water allocation from the New Melones Dam and has begun discussing joint development of surface water supplies with other South County jurisdictions.
- o The existing distribution layout of 16-inch arterial transmission mains and 12-inch pipes with 0.5 mile spacing should be continued. The distribution system in the downtown area needs to be improved.
- o The City completed a Phase I sewer treatment plant expansion in Summer 1987. The expansion added 750,000 gallons per day of treatment capacity for development in Manteca. This capacity, which is being allocated according to the City's Growth Management Program, will service growth through 1990. A further expansion of the treatment plant (Phase II) to its ultimate capacity of 6.95 mgd is currently planned and is expected to be completed by 1990. Phase II treatment capacity is expected to be adequate to serve development late into the 1990s. After the Phase II treatment capacity is exhausted, the City will have to develop a new parallel plant next to the existing plant or develop a new plant at another location.
- o Odor problems around the Spreckels Sugar Refinery result from waste disposal. Residential development in this area may not be appropriate because of odor problems.
- o The City completed a Storm Drainage Master Plan in 1987 that identifies needed storm drainage improvements to correct existing deficiencies as well as to provide for new development. The master plan, however, does not cover the entire area likely to be developed in the next 20 years.
- o The recreational opportunities in the community may be limited if the policy of joint storm drain/park development continues.
- o The City is currently well-served by its police and fire departments. New development will require major expansion of both services although economies of scale in these services should be realized as the city grows.
- o The Manteca Unified School District has relied heavily on the use of portable classrooms to accommodate increasing student enrollment. Core facilities are now, however, inadequate to accommodate additional students on campuses. As the city grows, the construction of new schools will be required. These schools should be located in the middle of future residential population centers.
- o Substation expansion and new substation siting will be necessary to provide electric service for growth in the planning area.

- o Additional library space will be required as development in the Planning Area grows. Construction of the north Manteca/Lathrop Way branch would help to alleviate overcrowding of the main branch as growth occurs.
- o The existing Manteca Hospital and the planned facility just east of the Yosemite Avenue - Airport Way intersection (St. Dominic's Hospital) will be adequate to accommodate current and future demand for hospital service in Manteca.

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Chisholm, Gary, Planner, South San Joaquin Health Systems Agency

Gossett, Jim, Project Manager, Montgomery Engineers

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Hulsey, Joe, Civil Engineering Assistant, City of Manteca Public Works Department

Mueller, Dave, Deputy Public Works Director, City of Manteca Public Works Department

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Podesta, Jim, Assistant City Engineer, City of Manteca Public Works Department

Shepley, Jim, Manager, Continental Telephone

Thomas, Jim, Superintendent Manteca Unified School District (former)

CHAPTER VII. CULTURAL & RECREATIONAL RESOURCES

CHAPTER VII

CULTURAL AND RECREATIONAL RESOURCES

INTRODUCTION

Part of Manteca's appeal stems from its historic past. Native Americans inhabited the area as long as 1,000 years ago. Following the development of an irrigation system, development began in earnest between 1914 and 1920. Today, Manteca's past is reflected in several historical and architectural significant structures.

As Manteca has grown, a number of annual community events have been established, including the Fourth of July Celebration, the Pumpkin Fair, and Christmas Faire.

Manteca's extensive park system and recreation programs are a source of city pride and major contributors to the quality of life in Manteca.

This chapter reviews Manteca's history, describes historical and archeological resources, cultural activities, and recreational facilities and programs.

HISTORICAL AND ARCHEOLOGICAL RESOURCES

Native Americans

The first inhabitants of the Planning Area were members of the Yokut Tribe. Their earliest presence in the region is estimated by archeologists to have occurred at least 1,000 years ago (Heizer and Whipple 1971). The Yokuts were probably attracted by the San Joaquin and Stanislaus Rivers and their tributaries. Most groups located their villages along the edges of permanent streams or watercourses. They gained much of their livelihood from fishing. Settlements tended to be larger and more permanent than in many parts of California (Gwinn and Tinkham, 1909). The Yokuts maintained trade links with coastal villages where they traded furs and other materials for shells such as abalone and clams. The Yokuts built tule boats to navigate the Delta and San Joaquin River. Shell disks and dentelium beads, as well as polished, cylindrically-shaped magnesite rocks and bi-valves, were used as money.

European and Euro-American

The first Europeans to arrive in the area, in 1769, were deserters from the Spanish military. In 1813, Spanish Franciscan friars, accompanied by soldiers, entered the San Joaquin Valley to round up the deserters, convert the native Americans to Catholicism, and search for suitable mission sites. Although the Yokuts at first co-existed with the Europeans, they were eventually exploited by the newcomers and fought with the settlers (Thompson, 1980). Two notable conflicts took place on the banks of the Stanislaus River about a mile and a half upstream from its confluence with the San Joaquin River. In the first battle on May 5, 1829, the combined Spanish forces from San Jose and San Francisco were defeated by the Indians, led by Chief "Estanislao." The Spanish later named the Stanislaus River after the Indian chief (Gwinn and Tinkham, 1909). General Vallejo returned to the area and on May 19, 1829, defeated the Yokuts, inflicting great losses.

In 1832, Colonel Warner, a member of a trapping expedition, reported finding numerous Indian villages along the San Joaquin River. Upon his return, he found the villages greatly depopulated due to a smallpox epidemic. Disease, war, and the displacement of Indians from their original hunting and fishing grounds had brought them to virtual extinction (Thomas and Wests 1968).

Gold Rush and Commerce

Euro-American settlement in California increased sharply with the Gold Rush of 1848. French Camp, located approximately two miles north of the Planning Area, was one of these first settlements and is the oldest existing settlement in San Joaquin County (Thomas and Wests 1968). French Camp was the terminus of the Oregon-California Trail used by French Canadian trappers employed by the Hudson Bay Company from about 1832-1845. On January 14, 1844, the Governor of California issued a land grant to Charles Weber and William Gulnac. The grant included French Camp and present day Stockton (Gwinn and Tinkham 1909).

The first structures, including a public house, store, and adobe structure, were erected in French Camp in August, 1849. French Camp grew rapidly between 1851 and 1853 as French Camp Road was the only passable all-weather route for thousands of miners working in the Mother Lode. By 1854, a post office was established. As roads between Stockton and the Mother Lode improved, business in French Camp slacked off.

First Landholders

Between 1849 and 1864, six families bought land within and around present day Manteca. Many suffered hardships as they traveled long distances by wagon train to eventually settle in the area. A brief description of these families and their land holdings follows.

The Clapps

Peter and Louisa Clapp purchased 160 acres of land near Lathrop, where they started a business chopping and hauling wood to Stockton and surrounding areas. Their land holdings eventually reached 1,600.

The Salmons

Janet and Cutler Salmon bought land on French Camp Road at the end of Union Road. Cutler had been the captain of his wagon train. Their ranch was known as "Delta Point."

The Castles

George and Harriet Castle acquired a 1,180 acre ranch, on which they built a home in 1868. The home stands on French Camp Road just east of Castle Road, and the fifth generation of the family owns it today. The Castles grew wheat and other crops, and trained and raced horses.

The Reynolds

James and Martha Reynolds purchased 440 acres of land near the corner of French Camp and Union roads. They eventually owned 1,400 acres, extending their holdings southward into present-day Manteca.

The Harelsons

Elijah and Sarah Harelson came to California in 1864 and reached French Camp in the same month they arrived. They purchased 320 acres on both the north and south side of French Camp Road. The Harelson Ranch is one of the few places in the south county still owned by the descendants of the original owner.

The Austins

In 1852, Jesse and Mary Austin settled in the Manteca area on 640 acres of land, bounded on the north by what is now State Highway 120, and on the west by a road later named Austin Road.

Joshua Cowell

Joshua Cowell, known as "The Father of Manteca," arrived in San Joaquin County in 1863 and immediately purchased the ranch he continued to live on until his death. This ranch includes most of present-day Manteca. He was one of the first to advocate building an irrigation system in the San Joaquin Valley. He became the director of a number of businesses in the city and, in 1918, became the City's first mayor (Thompson 1980).

Agriculture

The gold seekers of 1850 turned their attention to the soil when they realized gold would not earn them a living. Without irrigation, grain was almost the only crop worth planting. Between 1864 and 1884, wheat and barley from San Joaquin County were rated as the best crops on the world market. To provide higher yields, local inventors improved farming equipment. In 1867, Zinc House Grainery, built near the intersection of Wagner Road and today's Highway 120, became a receiving station for large shipments.

Another center for grain shipment was San Joaquin City, located on the south bank of the San Joaquin River east of the Airport Way crossing. San Joaquin City continued to flourish until the railroads were completed through the valley in the 1870s. By 1906, grain was no longer the primary crop, having been replaced by alfalfa, melons, grapes, and almonds.

An irrigation system was completed in the Manteca area in 1914. The results of diversified farming and irrigation produced a boomtown atmosphere in Manteca. Between 1910 and 1920, many of the existing downtown buildings were built, and the city's population increased from 80 to 2,000.

At various times in its history, Manteca has been known as the "watermelon capital of the world," "sugar beet town," "tomatoville," sunflower center," and "dairy center of California" (Thompson, 1980).

Historic Sites and Buildings

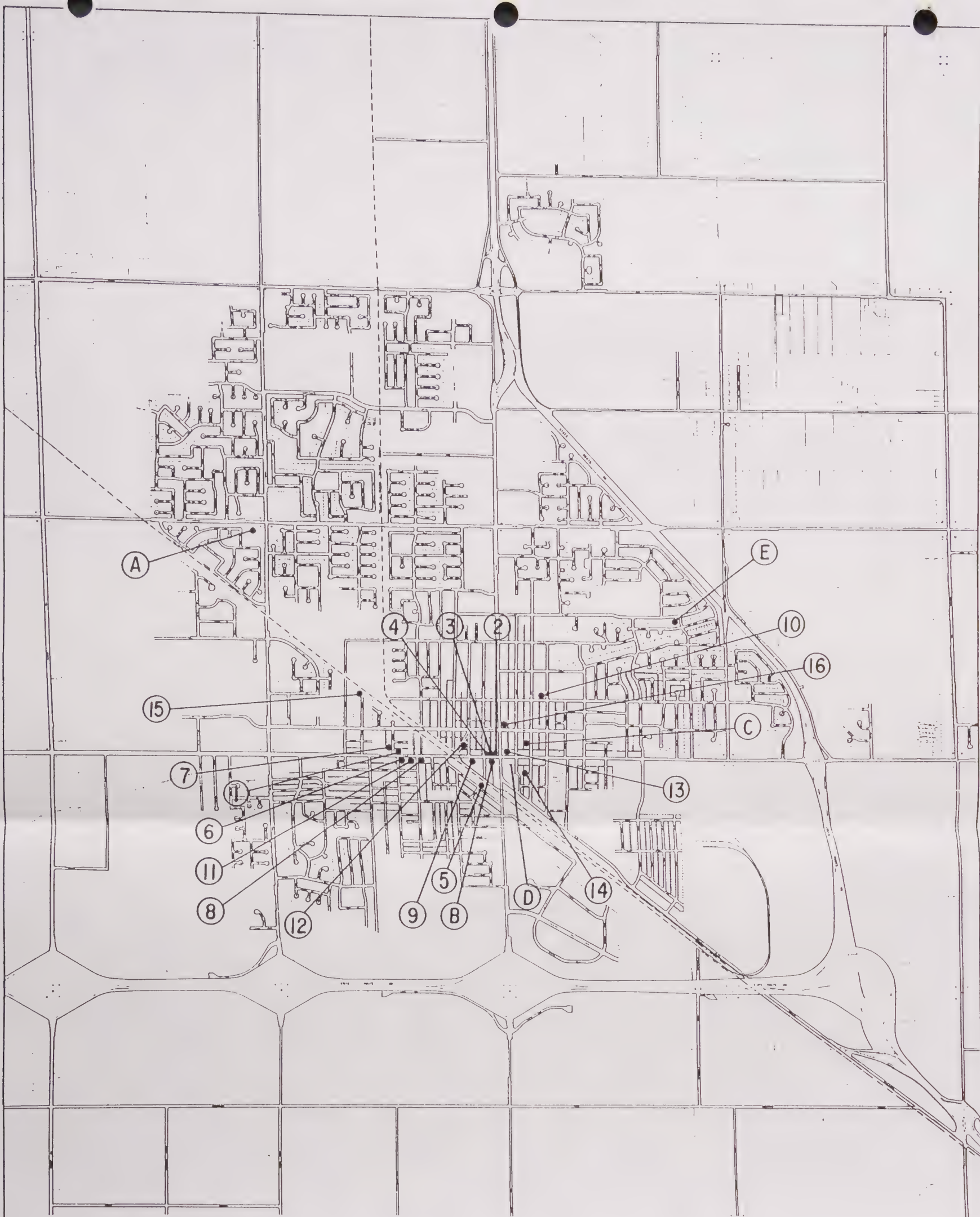
In 1982, the City of Manteca's Planning Department compiled an inventory of historic buildings and sites within the community. (Manteca Historical Survey 1982). The study is incomplete and a more detailed analysis is necessary to support historic preservation efforts in Manteca. The sites surveyed are listed in Table VII-1 and shown in Figure VII-1. Other sites being

TABLE VII-1

HISTORIC SITES AND BUILDINGS SURVEY

1	Overshiner home	629 W. Yosemite Ave.	1913	Residence	Residence
2	Odd Fellows building	115 W. Yosemite Ave.	1913	Odd Fellows building	Retail store/ meeting hall
3	Commercial building	135 W. Yosemite Ave.	-	-	Retail store/ apartments
4	Commercial building	169 W. Yosemite Ave.	-	-	Retail store/ storage
5	Baccilieri Winery	211 Oak St.	-	Winery	Warehouse
6	Ed Powers home	614 W. Yosemite Ave.	-	Residence	Residence
7	E. E. Douglas home	111 N. Veach Ave.	1914 estimate	Residence	Residence
8	Manteca's first hospital	528 W. Yosemite Ave.	1919	Hospital	Apartments
9	J. Walter Graves office	228 W. Yosemite Ave.	1904	Retail store	Retail store
10	Lindbergh School	311 E. North St.	1928	Elementary school	Adult edu- cation/Day care
11	First Methodist Episcopal Church	600 W. Yosemite Ave.	1917	Church	Church
12	City Hall	121 Sycamore Ave.	1923	City Hall/Fire Dept.	Business of- fice/storage
13	Cowell building	105 E. Yosemite Ave.	1912	Retail/apartments	Retail store
14	G. Wetherbee home	137 S. Lincoln Ave.	-	Residence	Residence
15	J. W. Graves home	312 Almond Ave.	-	Residence	Residence
16	SSJID Office	220 N. Main St.	1910	SSJID Office	Restaurant
17	Hotel Wiggin	105 Sycamore Ave.	1912	Hotel	Apartments

Source: Planning Department, City of Manteca 1982.



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JONES & STOKES ASSOCIATES

FIGURE VII-1. HISTORIC RESOURCES

SEE TEXT FOR DESCRIPTION OF HISTORIC RESOURCES

Source: City of Manteca Planning Department, 1982

investigated for historic value include the East Union Cemetery (A), located on Louise Avenue and Union Road; the downtown core area (D); an older residence on Lincoln Avenue (C); a home of Mylnar Avenue (E); and the El Rey Theater on East Yosemite Avenue (B) (see Figure VII-1).

The Castle residence, built in 1868, and described above, is located on French Camp Road just east of Castle Road. The other, located in the southwest part of the Planning Area, is the site of the San Joaquin River bridge that completed the last link in the transcontinental railroad. This site has been designated as a State Historical Landmark.

A search conducted by the California Office of Historic Preservation revealed no sites or structures listed on the National Register of Historic Places within the Planning Area (Elder letter).

Archeological Resources

The Central California Information Center of the California Archeological Inventory completed records searches for the Manteca General Plan project on October 25, 1985, and February 28, 1986. The search revealed that three archeological Native American occupation sites are located within the Planning Area near the San Joaquin River.

The preparers of the survey also note that since cultural resource records for all counties in California are based on incomplete surface and subsurface archeological and historic investigation, the apparent absence of cultural resources may not be indicative of the actual number, significance, age, or condition of cultural resources present in the Planning Area.

CULTURAL EVENTS

Fourth of July

The City of Manteca had its biggest Fourth of July celebration ever in 1985. The Coca-Cola Company helped support the celebration by printing 10,000 bottles with the words, "Manteca, First Annual Fourth of July Celebration." The money collected from the bottle sales supported activities including a fireworks display, a beauty pageant, a softball tournament, dances, and a show of 200 performers depicting the history of the country. The show was presented at the Manteca High Football Field and attracted approximately 7,000 guests.

Christmas Faire

The faire where local businesses display their merchandise is held at the Manteca-Ripon Pentecostal Society Hall during two evenings in November. The event attracted approximately 5,000 people in 1985. A Christmas parade open to all is held along Yosemite Avenue the first Saturday in December.

Pumpkin Fair

In 1985, Manteca's first Pumpkin Fair was held at Oakwood Lake. The Pumpkin Fair replaced the annual Manteca Pumpkin Festival which began in 1974.

Mark Twain Festival

This day-long event to honor Mark Twain includes skits, a square dance, bands, a fashion show, and a frog jump contest.

Community Arts

In 1985, five plays were performed at the two local high schools. A classical concert was held in 1985 at the Catholic Church. A new annual classical concert series commencing in 1985/1986 will provide three classical concerts per season.

PARKS AND RECREATION

Parks within Manteca are operated and maintained by the Manteca Parks Department. Parks outside the city limits are operated and maintained by the San Joaquin County. Recreation programs in an area coterminous with the boundaries of the Manteca Unified School District, are funded jointly by the City of Manteca, San Joaquin County, and the Manteca Unified School District, but are administered by the Manteca Parks and Recreation Department.

Facilities

City-owned parks, including facilities and activities found at each park, are listed in Table VII-2. Figure VII-2 shows the location of existing parks, with the numbered locations matching the list of parks numbered in Table VII-2.

The City administers approximately 219.78 acres of parkland, including a 122-acre municipal golf course. The remaining 97.78 acres, 58.61 acres are combined park/storm drain facilities. These areas generally have gentle slopes with an elevation change of about six feet from the top of the sidewalk to the storm water inlet. The inlets allow storm drainage onto parks during the wet season. As a result, these parks are only available a portion of the year, which reduces their recreational value approximately 60 percent of the land designated as parkland falls into this category. Soccer, football, and other winter sports are greatly curtailed by standing water in the winter months.

Lincoln, Shasta and Doxy Parks, are developed in conjunction with adjacent schools. The location of schools and parks adjacent to one another avoids duplication of facilities and also allows for conjunctive use.

All the campuses within the Manteca Unified School District, with the exception of the Lindberg Adult School, are open to the public for recreational use after school hours. The K-8 schools provide both sophisticated playground equipment. The high schools (Manteca and East Union) both have gymnasiums which the Parks and Recreation Department uses for basketball, volleyball, aerobics, weight lifting, and other recreational activities. In addition, both high schools have tennis courts. Manteca High School has a swimming pool which can be used by the community for sponsored events (i.e., swim meets competition). The high school facilities currently can be used by the public. As a result, public use is frequently preempted and adult recreation programs cancelled (Boyd pers. comm.).



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0 1/4 1/2 1
Scale in Miles

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FIGURE VII-2. EXISTING PARKS

See Text for Park Names and Descriptions

Source: City of Manteca Parks Department, February 1986

TABLE VII-2

PARK AND RECREATION FACILITIES AND ACTIVITIES
City of Manteca
JULY 1987

Map No.	Park	Acres	Deve- loped	Undeve- loped	Storm drain	Soft- ball	Base- ball	Basket- ball	Swim- ming	Soccer	Tot lot	Tennis	Horse shoes	Picnic area
1	Baccilieri	1.26	x											x
2	Bay Meadows	4.00	x		x						x			x
3	Center Street	0.43	x									x		x
4	Colony	5.00	x		x			x			x			x
5	Franciscan	4.00	x		x						x			x
6	Springtime	4.50	x		x			x			x		x	x
7	Greystone	5.00	x		x						x			x
8	Hildebrand	0.58	x								x			x
9	Library Park	0.50	x										x	x
10	Lincoln	3.73	x				x		x					x
11	William Martin	1.56	x					x			x			x
12	Mini	0.17	x					x			x			x
13	St. Francis	5.50	x		x			x			x		x	x
14	Sequoia	4.00	x		x						x			x
15	Shasta	10.96	x		x						x			x
16	Southside	3.16	x								x			x
17	Union Road	7.00	x								x	x		x
18	Union West	3.65	x		x			x			x			x
19	Wilson	0.37	x											
20	Yosemite	4.91	x			x	x			x	x			x
21	Northgate	15.11	x			x				x	x		x	x
22	Crestwood	4.00	x		x			x			x		x	x
23	Doxey	4.00	x		x			x			x			x
24	Municipal Golf Course	122.00	x											
25	Mayor's	4.00	x		x			x			x		x	x

TABLE VII- 2

SAN JOAQUIN COUNTY
PARK AND RECREATION FACILITIES AND ACTIVITIES

Park	Acres	Deve- loped	Undeve- loped	Partially deve- loped	Soft- ball	Base- ball	Basket- ball	Boat Ramp	Cam- ping	Tot lot	Picnic area
1. Lathrop Community	9.16	x				x	x			x	x
2. Raymus Village	1.60	x			x					x	x
3. Dos Reis	9.00							x	x		
4. Mossdale	5.00							x		x	

Four other parks within the Planning Area are administered by the San Joaquin County Department of Parks and Recreation. Table VII-2 also lists the facilities and activities found at these parks.

The Lathrop Community Center and Park contains 9.16 acres. Facilities include a community center, two picnic shelters, an outdoor restroom, two baseball diamonds, outdoor basketball court, and a tot lot. The Community Center is operated by the San Joaquin County Department of Aging and Community Services. This department's programs are designed to assist low-income individuals and families and provide activities for them. The Little League Program attracts approximately 145 participants during a season.

Raymus Village Park contains 1.60 acres. Facilities include a tot lot, baseball diamond, and a picnic shelter. The park is used by residents of the surrounding housing development (Leonard pers. comm.).

Along the San Joaquin River, the County maintains two water oriented parks. Facilities at Mossdale Park, located on Manthey Road just north of the junction of I-5 and the 120 By-pass, include a boat launching ramp, a tot lot, restrooms, and picnic tables. Facilities at Dos Reis Park, located at the west end of Dos Reis Road, include a boat launching ramp, 20 RV spaces, toilet/shower facilities, and picnic tables.

The City of Manteca recently completed construction of a Senior Citizens Center behind City Hall and has relocated the former senior citizens' programs at Lindberg School to the new facility.

Oakwood Lake Resort is a 360-acre private recreation facility located outside the City of Manteca near the San Joaquin River and Woodward Road. Facilities provide a 450 tent and R.V. campground, 70-acre lake, water-oriented rides, a 6,000-seat outdoor amphitheater, two softball fields, two large meeting halls, and picnic areas. It is widely used by Manteca residents (Stuart pers. comm.).

Other recreational facilities within and around Manteca include a 24-lane bowling alley and Caswell State Park, which is situated four miles south of Manteca (Manteca District Chamber of Commerce, 1985).

Park Use

Ninety-six teen and adult teams involving 1,900 players, participate in league play at the City's Northgate Park softball complex. Yearly estimates for use of the complex are 1,163 games, 5,311 participants, and 16,703 spectators. The complex can be rented out on weekends for tournament play.

Soccer is also popular in the Manteca area. Approximately 600 children participated during the 1985 season and 280 adults participate in a co-ed league. Facilities used for soccer include Northgate Park, Yosemite Park, New Haven School, Shasta School, Manteca High School, and East Union High School. The children's league is run by an independent group, the Manteca Area Soccer League (MASL), and the adult program by the Manteca Parks and Recreation Department.

The 18-hole municipal golf course also provides adult recreation. Approximately 68,000 people used the course in FY 1986-87.

Recreation Needs

The 1971 Manteca Recreation Element recommended 2.5 acres of neighborhood parkland per 1,000 persons and an additional 2.5 acres of community parks and open space per 1,000 population. The current parkland standard used by the City of Manteca is three acres per 1,000 population.

There are currently 2.9 acres of City-owned neighborhood/community parklands per 1,000 persons, of which approximately 2.3 acres per 1,000 persons are developed. Much of the acreage is, however, used jointly as storm drainage basins. Standards developed by the National Recreation and Park Society and the State of California have been reviewed. Table VII-3 shows a "composite" of State and national standards by park-type. Table VII-4 compares the existing City park and recreation facilities with these standards and identifies future park needs at several future city population levels.

The City's Parkland Dedication Ordinance is the primary means of funding parkland development.

Manteca's need for expanded recreational opportunities has been identified as follows (Boyd pers. comm.):

- 1) Gymnasium - the Parks and Recreation Department is presently unable to schedule enough time in the two high school gyms to run activities such as youth and adult basketball, youth and adult volleyball, and badminton.
- 2) Community center - a central location is needed to conduct many recreation activities. The facility might include restrooms, showers, a full kitchen, seating for 1,000 people, and rooms for club meetings.
- 3) Park site - a large 50-75 acre park site is needed that can be used for soccer fields, softball, flag football, the Pumpkin Fair, and the annual 4th of July celebration.

TABLE VII-3

COMPOSITE STATE AND NATIONAL PARKS
AND RECREATION STANDARDS

Park Classification	Suggested service Radius	Sugg!sted acres/ 1,000 population	Suggested acres for a community of 33,000
Neighborhood	0.25 - 0.50 mile	2 - 2.5	66.0 - 82.5
Community	1 - 2 miles	2.5 - 4.0	82.5 - 132.0
Regional	10 miles	15 - 20	495.0 - 660.0

Source: National Recreation Park Society and the State of California.

A survey form has been distributed by the County Parks and Recreation Department to numerous park visitors and prior park users. The department is seeking to determine prospects for park visitor demographic change to identify future recreational needs for San Joaquin County regional parks. In addition, the department is attempting to identify problem areas in their parks through user's perception (Leonard pers. comm.).

TABLE VII-4

COMPARISON OF CITY OF MANTECA PARK AND RECREATION
FACILITIES WITH STATE/NATIONAL STANDARDS

	<u>Neighborhood</u>		<u>PARK ACREAGE</u> <u>Community</u>	<u>Regional</u>
	Developed and <u>Undeveloped</u>	Developed <u>Only</u>		
Existing park acres in Manteca	78.94	56.94	18.84*	0
State and national standards for 33,000 member community	82.50	82.50	82.50	495.0
Deficit in park acres based on current population	(3.56)	(25.56)	(63.66)	(495.0)
Deficit in park acres based on future population levels				
40,000 Need	100	100	100	600
Deficit	(21.06)	(43.06)	(81.16)	(600)
60,000 Need	150	150	150	900
Deficit	(71.06)	(93.06)	(131.16)	(900)
80,000 Need	200	200	200	200
Deficit	(121.06)	(143.06)	(181.16)	(200)
100,000 Need	250	250	250	250
Deficit	(171.06)	(193.06)	(231.16)	(250)

* Does not include 122 acre Municipal Golf Course

FINDINGS

- o The recreation opportunities in the community may be limited if the policy of joint storm drain/park development continues.
- o Historic resources in Manteca provide a link to its past and should be identified and protected.
- o Expanded recreational opportunities needed by the City of Manteca include a gymnasium and a Community Center.
- o Manteca should consider developing a large regional park to meet present and future population levels. Development of a small lake within the city with opportunities for picnicking and boating would provide a focal point for both recreation and aesthetic purposes.

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Department

Page, Lois, Chairman, Mark Twain Celebration

Sanguinetti, Phil, Planning Director, City of Manteca Planning Department

Soares, John, Chairman, Fourth of July Celebration

Stuart, Chris, General Manager, Oakwood Lakes Resort Recreation Area

Taylor, Shirley, Chairman, Mark Twain Celebration

CHAPTER VIII. NATURAL RESOURCES

CHAPTER VIII

NATURAL RESOURCES

INTRODUCTION

Manteca's natural resources--its air, water, agricultural lands, fish and wildlife (and their habitats), and mineral resources contribute to the city's economy and are key elements in the quality of life for Manteca residents.

This chapter provides an inventory of the City's natural resources, including water resources, soils and agricultural resources, vegetation and wildlife, minerals, and air quality, including an assessment of their current quality and value.

WATER RESOURCES

The quantity, quality, and availability of water are vital to both human activities and vegetation and wildlife in the Planning Area. Water is essential to the viability of agriculture; the development of housing, commerce, and industry; recreation; and the maintenance of high quality fish and wildlife habitats.

The important water resources in and adjacent to the Planning Area are Lone Tree Creek, the San Joaquin River, and a major groundwater basin. Groundwater supplies the potable water for the Planning Area.

Precipitation

The climate of the San Joaquin Valley is one of hot summers and cool rainy winters. During the summer months the San Joaquin Air Basin is under the influence of a high pressure cell off the west coast. Within this cell, air descends almost continuously; the descending air is compressed, thereby raising its temperature and lowering the relative humidity. When this cell is dominant, there are no major storms nor any regionwide precipitation. In the winter the influence of this high pressure cell is intermittent, resulting in alternate periods of stormy, unsettled weather and periods of stable, rainless conditions.

The mean annual precipitation for Stockton is 14.31 inches. Most of the precipitation occurs December to April; the summer months are virtually rainless. Occasionally, during the summer, thunderstorms may move down to the valley from the Sierra, bringing locally heavy rains (U. S. National Oceanic and Atmospheric Association, 1977).

Rivers and Streams

The San Joaquin River is located on the western edge of the Planning Area. The beneficial uses supported by the San Joaquin River include agricultural water supply, industrial process water, warm freshwater habitat for aquatic resources, habitat for fish spawning, migration routes for anadromous or other fish species, water supply and vegetative habitat for the maintenance of wildlife, and water and nonwater contact recreation.

The main stem of the San Joaquin River originates high in the Sierra Nevada crest and flows westerly to Millerton Lake, which is impounded by Friant Dam. Releases in the San Joaquin system flow north toward Stockton. At Friant Dam, a major portion of the flow is diverted into the Central Valley Project Canal System. Stream flow in the valley during the summer consists mostly of irrigation return flows.

Waters at the high elevations originate as snow melts and are of excellent quality. Irrigation drainage and waste discharges received on the valley floor continuously degrade water quality. Dissolved salts and nutrients in agricultural return flows, and seepage from municipal and industrial percolation ponds are the sources of water quality degradation. Low flows resulting from upstream diversion and regulation have virtually eliminated salmon runs in the basin streams and are endangering the marshlands' wildlife.

The segment of the San Joaquin River from Vernalis, a stream station on the San Joaquin River south of Manteca, to the Stockton ship channel has been identified as a water quality limited segment. Total dissolved solids exceed basin plan objectives and dissolved oxygen is depressed along this stretch. Low dissolved oxygen conditions prevail in the late summer and fall, adversely affecting the migration of spawning salmon. Increased content of salts, nutrients, and organics result in biostimulation and reduced suitability of this reach for agricultural, fisheries, and domestic use.

At Vernalis, the flow records for a 52-year period show a 4,388 cubic feet per second (CFS) average flow. A minimum flow of 19 cfs recorded in August 1961 is indicative of predominant low summer flow conditions. During water year 1980, the average annual flow was 8,253 cfs. Maximum flow was 33,900 and minimum flow was 1,760 cfs (California State Water Resources Control Board, 1982).

The City of Manteca received approval from the Central Valley Regional Water Quality Control Board (CVRWQCB) to discharge up to 5.75 mgd of treated effluent to the San Joaquin River following sewage treatment plant expansion and upgrading in Summer 1987 (Phase I). When further expansion of the treatment plant occurs, an additional application to the CVRWQCB will be required to increase the allowable treated effluent discharge.

The CVRWQCB staff plans to complete further studies on the San Joaquin River. The data compiled as a result of this study can be used to determine if additional discharge of treated effluent will cause degradation of existing water quality. The main water quality concern expressed by CVRWQCB staff is due to the low dissolved oxygen level. Effluent from treatment plants has a high biological oxygen demand which would further deplete dissolved oxygen levels in the river. California Department of Fish and Game has set a standard of 5 milligrams of dissolved oxygen per liter of water to sustain fisheries. The existing dissolved oxygen level varies constantly, but generally is about 5 milligrams per liter of water. Additional testing is needed to establish a more exact figure (Reents pers. comm.).

Disposal of effluent into waterways can also result in increased levels of heavy metals and organics. The City of Manteca is currently required to analyze sludge for organics and heavy metals to generate data on the levels of these potential pollutants. Industries that have heavy metals in their discharge are required to pretreat sewage.

No data on the water quality of Lone Tree Creek are available from the RWQCB. The main function of the RWQCB is to collect water quality data in areas where problems are known to exist and, as a result, data are not available for all waterways.

Groundwater

Groundwater levels are relatively high throughout the Planning Area. Depth to groundwater in 1984 was 10-15 feet in the spring and 20-25 feet in the fall. Area water levels are buoyed by the proximity of the Delta channels to the west and recharge from irrigation of agricultural lands surrounding the City (Kennedy/Jenks Engineers, 1985). In addition, groundwater recharge occurs from the Stanislaus River and the hills to the east of the planning area.

The groundwater aquifers in the Manteca area extend to depths in excess of 600 feet. Due to the alluvial generation of the aquifers, there is significant variation in grain size with lenses and strata of high-yield gravels, permeable sandy material, and lower permeability clays.

There is concern about the groundwater basin overdraft that is occurring in the Stockton area, just north of Manteca. Groundwater elevations have dropped in the south Stockton area to below sea level, and the water quality is deteriorating with the intrusion of saltwater from Delta channels (State of California, The Resources Agency, Department of Water Resources, 1980).

Saltwater intrusion into public wells was identified as a problem within the Lathrop Community Water District in 1983 (Casteel pers. comm.). As a result, Lathrop's Well Number 1 was closed in May 1984, and Well Number 3 was closed in October 1985 (see Figure VI-2). Closure of the wells is intended to prevent further eastward migration of salt water.

Testing of wells for salt water intrusion is required by the San Joaquin County Health Department pursuant to ordinance number 1862, Division 4, San Joaquin County Ordinance Code, within an area bounded by Airport Way on the east, French Camp Road on the north, Interstate 5 on the west, and Lathrop Road on the south. Where high salinity levels are found, the County Health Department has the authority to seal off upper aquifers to prevent upward migration of salt water (Borgman pers. comm.).

Groundwater quality problems exist on and around Sharpe Army Depot. Chlorinated volatile organics (specifically trichloroethylene (TCE)) and arsenic have been found in the groundwater. The TCE is from activities at Sharpe Army Depot; the origin of the arsenic has not been established. The state action level for TCE is 5 parts per billion (ppb).

Contamination on the army depot site extends down to at least 140 feet. TCE concentrations as high as 1,200 ppb have been detected on-site. The extent of off-site contamination is currently unknown. The RWQCB has ordered the drilling of test wells and sampling water to determine the extent of the contamination. A monitoring program is currently underway.

The source of the TCE is thought to be in the southern portion of the army depot. The contamination is thought to extend northwest in the direction of groundwater flow. Water from 25 domestic wells east and west of Harlan

Road and north and south of Roth Road has been sampled several times for TCE content. These wells have shown detectable levels of TCE below the state action level. The wells are old, and as a result it is difficult to pinpoint the location of the TCE in the groundwater column because the wells are improperly sealed (Reents pers. comm.).

A regional water management study was undertaken by San Joaquin County for the east county area, which includes Manteca. The study addressed future groundwater basin response to alternative management plans, including importing supplemental surface water to be used conjunctively with groundwater to meet future water demands.

The City's 15 existing wells produce from 800-2,300 gpm. Table VIII-1 presents historical water quality data from the City's wells. The quality of groundwater produced by the system currently meets or exceeds the State Department of Health Services recommended drinking water quality standards. The 1985 water quality test results do show a slight general increase in the mineral content of the well water. There are concerns about the ability of the groundwater source to continue to meet these standards in future years (Kennedy/Jenks Engineers, 1985). Specific water quality problems are discussed in Chapter VI, Public Facilities and Services.

Water Use

Water is used in the Planning Area for residential, commercial, industrial, and agricultural purposes. The assumptions used for daily water use estimates for municipal uses are presented in Chapter VI, Public Facilities and Services.

Potable Water Supply

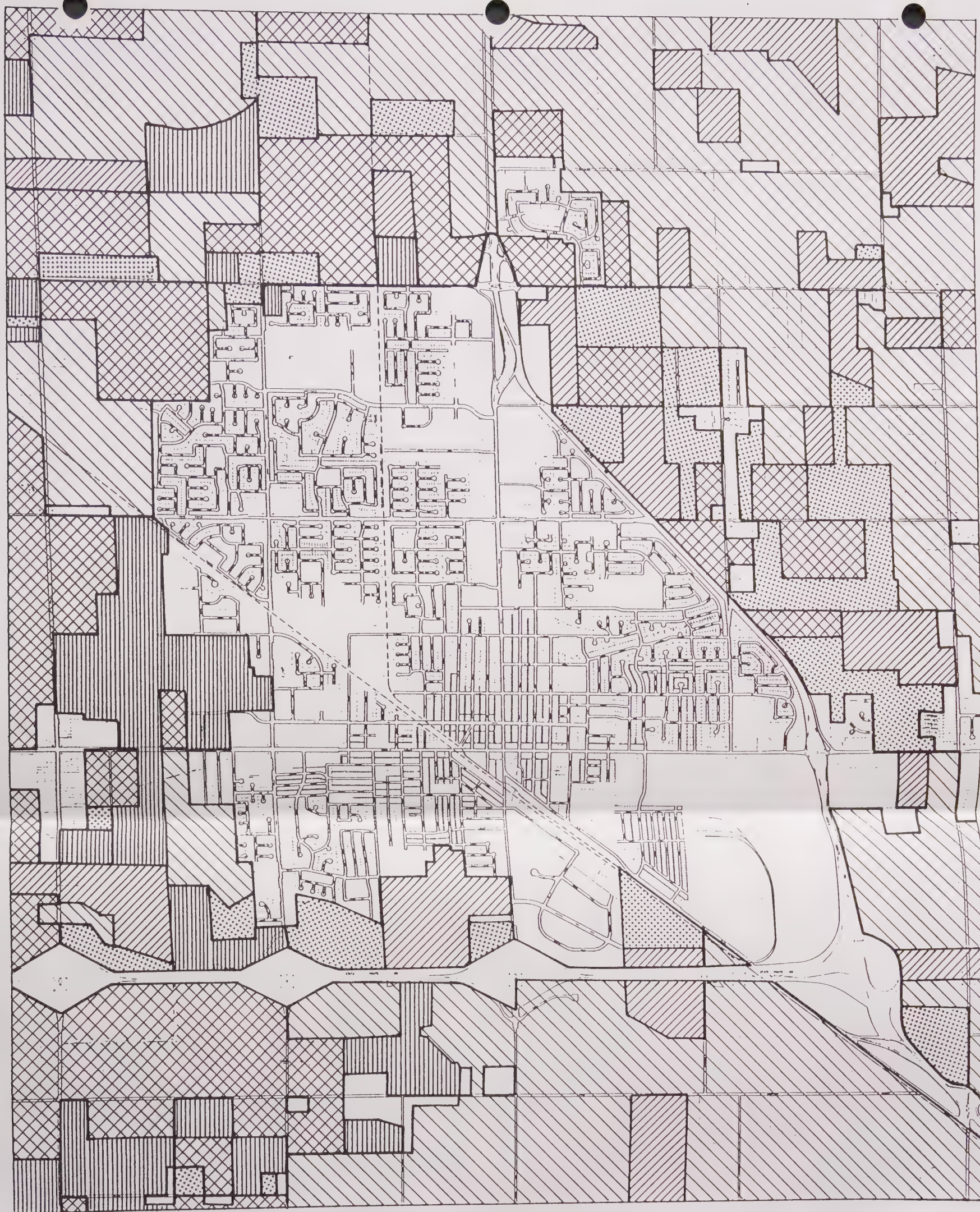
Three centralized water systems and domestic wells provide the potable water supply for the Planning Area. These systems are described in Chapter VI, Public Facilities and Services.

SOIL AND AGRICULTURAL RESOURCES

Agriculture continues to constitute a major portion of San Joaquin County's economic base. Approximately 696,160 acres were in agricultural production in the county during 1984.

Agriculture constitutes the predominant land use in the Planning Area. Agricultural uses in the Planning Area include fruit and nut orchards, field crops, vegetable, seed, and other row crops, vineyards and pasture. Figure VIII-1 indicates the general areas of predominant agricultural crops.

Agriculture and agriculture services generate 11.5 percent of the city's total employment. Agriculture related manufacturing employment, including seasonal jobs, constitutes an additional 8.9 percent of the city's total employment (Manteca District Chamber of Commerce, 1985). Every retail dollar spent on agriculture in the Planning Area generates between \$2.00 and \$2.50 of total revenue in the Manteca area (Wallace pers. comm.). Table VIII-2 indicates the area's agricultural land productivity in terms of both monetary gross value and harvested acreage for its principal agricultural products.



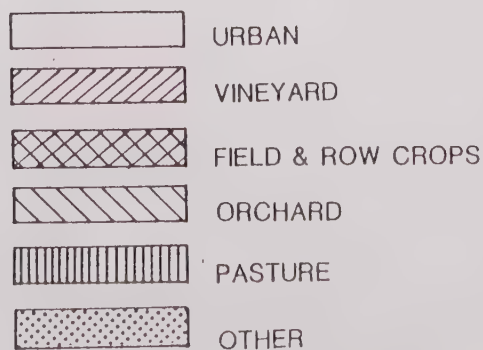
MANTECA CALIFORNIA General Plan



0 1/4 1/2
Scale in Miles

J. LAURENCE MINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

FIGURE VIII-1. LANDS IN AGRICULTURAL PRODUCTION



Source: California Department of Water Resources, 1983

TABLE VIII-1

CITY OF MANTECA HISTORICAL CHEMICAL ANALYSES OF WELL WATER
WATER QUALITY RANGE (mg/l)

<u>Year Analyzed</u>	<u>1950¹</u> <u>(3 Wells)</u>	<u>1965¹</u> <u>(4 Wells)</u>	<u>1977</u> <u>(All Wells)</u>	<u>1981</u> <u>(All Wells)</u>	<u>1985</u> <u>(All Wells)</u>	<u>State</u> <u>Standard</u>
Total dissolved solids (TDS)	265-315	245-324	190-390	172-330	156-442	1,000
Hardness	148-158	126-197	105-238	99-187	69-266	No Std.
Chloride (Cl)	18-24	9.5-18.5	8.5-35.5	10-44	7-54	500
Sulfate (SO ₄)	7-13	11.6-19.1	17-44	14-44	13.2-44.8	500
Nitrate (NO ₃)	5-6 ²	3.2-7.9 ²	14-46	6-35	3.3-46.5	45
Fluoride (F)	0.1	0.2-0.3	0.24-0.26	0.12-0.19	0.17-0.40	1.0
Calcium (Ca)	37-43	33-52.5	27-61	26-47	19.5-68.9	No Std.
Magnesium (Mg)	10-13	10.5-16	9.2-22.2	8.1-17	5.0-23.0	No Std.
Sodium (Na)	--	20-27	20.5-43.2	20.6-40.7	19.7-34.5	No Std.
Iron (Fe)	0.1	0.1	< 0.1	0.05-1.2	< 0.1-0.14	0.3
Manganese (Mn)	--	--	< 0.05	< 0.01-0.01	< 0.01-0.15	0.05

¹ From 1968 Water Master Plan Report.² As N.

Source: Kennedy/Jenks Engineers 1985.

Soils

One principal factor limiting agriculture in the Planning Area is the availability of productive soils. As urbanization encroaches upon farm lands, productive soils are permanently removed from agricultural use. Table VIII-3 presents a summary of the soil mapping units in the Planning Area and their associated properties.

Runoff from all soils in the Planning Area is slow and the hazard of water erosion is slight. Table VIII-3 indicates that soil permeability in the Planning Area ranges from slow to rapid and that the hazard of wind erosion ranges from slight to high.

Land Capability

The U. S. Department of Agriculture, Soil Conservation Service (SCS) is the primary source of information concerning the suitability of soils for agricultural use. The SCS has developed a "Land Capability Classification System" which organizes soils into eight categories designated by Roman numerals. Arable lands are organized into Classes I through IV. Nonarable lands are those unsuited for long-term cultivation. Classes V through VIII contain nonarable lands.

The SCS also implements another soils classification system: the "Important Farmland Inventory (IFI)". The IFI is being used by the California Department of Conservation's Farmland Mapping and Monitoring Program. The Farmland Mapping and Monitoring Program provides a source of information for state and local agencies concerned with agricultural land conversion. The IFI identifies four farmland categories: prime land, additional farmland of statewide importance, unique farmland, and additional farmland of local importance.

Soil mapping for the Land Capability Classification System has been completed in San Joaquin County. Table VIII-3 contains the Land Capability Classification for soils in the Planning Area. The Planning Area contains Classes I, II, III, and VII. The IFI has not been completed in San Joaquin County. Assignment of soils to one of the IFI classifications is accomplished by a panel of experts including representatives of the SCS, the California Department of Conservation, the San Joaquin County Agricultural Commissioner, the University of California, and other agricultural interests (Sorenson pers. comm.).

The Prime Farmland designation is based upon factors including: the availability of a reliable water supply, the area's temperature range, depth of the water table, soil permeability, and other factors. Generally, soils receiving a Class I or II rating are designated Prime Farmland. Much of the Planning Area is potentially IFI Prime Farmland.

For analysis purposes, Figure VIII-2 presents the Planning Area divided into five sections: Section 1 includes the area west of I-5 extending to the San Joaquin River. Significant portions throughout Section 1 contain Class II soils which are potentially Prime Farmlands. The Class II soils include Columbia fine sandy loam (CB, CF), Egbert silty clay loam (EB), Grangeville clay loam (GC), drained Grangeville fine sandy loam (GV), and Veritas fine sandy loam (VH). There is also a small area of Class I Honcut fine sandy loam (VF) south of Freewert Road.

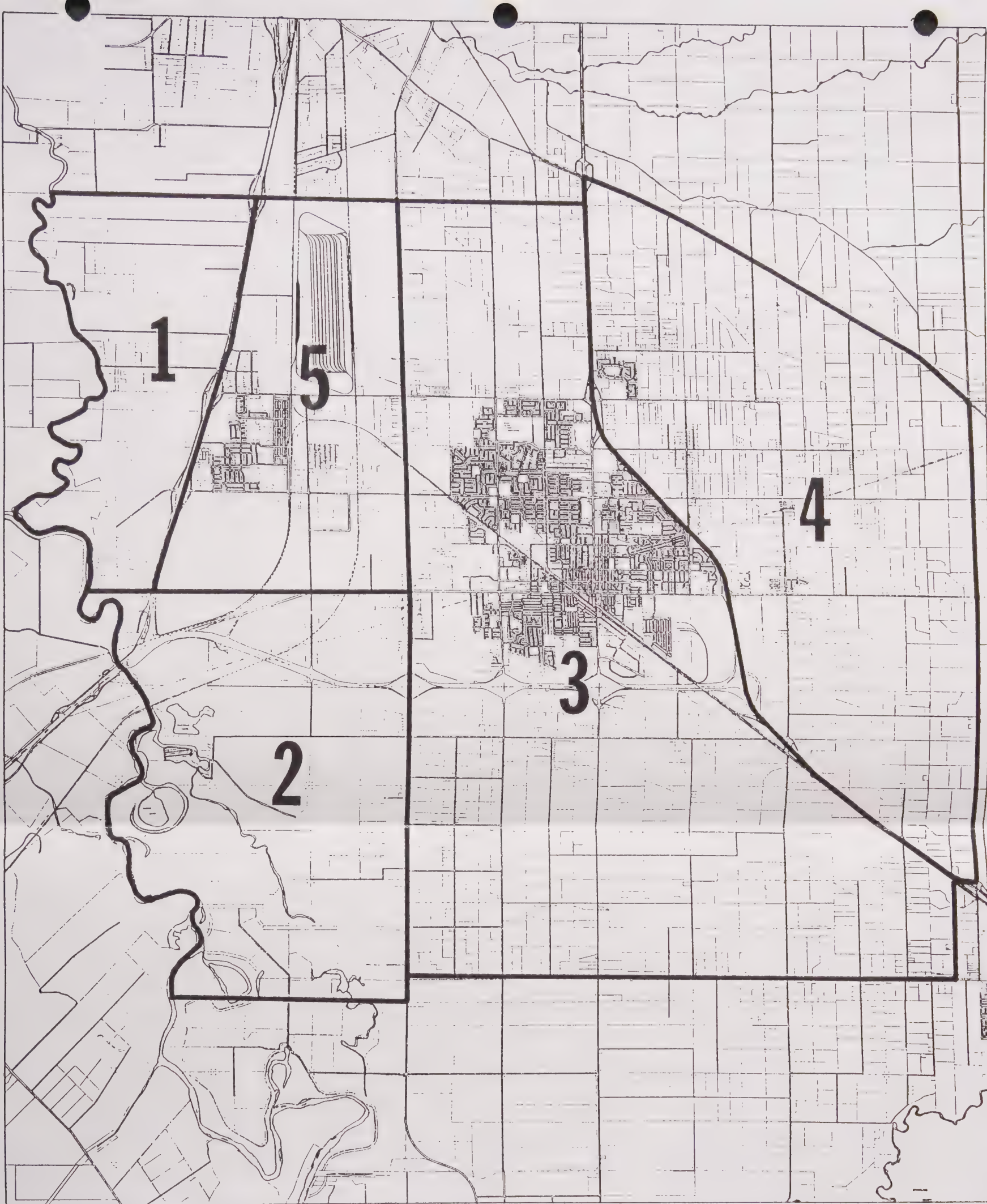


FIGURE VIII-2. SOILS LOCATION MAP

MANTECA
CALIFORNIA
General Plan



0 1/2 1 2
Scale in Miles

J. LAURENCE MINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

SEE TEXT FOR DESCRIPTION

TABLE VIII-2

SAN JOAQUIN COUNTY AGRICULTURAL LAND PRODUCTIVITY

Land use	1979		1980		1981		1982		1983		1984	
	Acreage	Gross value (\$)	Acreage	Gross value (\$)	Acreage	Gross value (\$)	Acreage	Gross value (\$)	Acreage	Gross value (\$)	Acreage	Gross value (\$)
Field crops	607,737	154,955,000	556,000	190,134,000	539,000	165,628,000	527,200	145,383,000	480,000	134,190,000	496,000	153,876,000
Fruit and nut crops	121,039	209,181,000	125,648	217,320,000	122,800	212,794,000	126,003	189,011,000	127,423	145,440,000	129,000	193,698,000
Vegetable crops	63,030	108,884,000	57,097	107,303,000	61,200	112,812,000	66,735	102,617,000	60,600	96,823,000	64,200	119,416,000
Seed crops	9,828	7,463,000	9,427	6,391,000	9,700	6,150,000	7,200	3,849,000	5,000	4,135,000	6,960	4,543,000
Nursery	N/A	15,205,000	N/A	17,456,000	N/A	19,532,000	N/A	17,132,000	N/A	16,654,000	N/A	16,718,000
Livestock, poultry, and products	N/A	192,310,000	N/A	220,912,000	N/A	252,488,000	N/A	233,985,000	N/A	238,649,000	N/A	222,486,000
Apiary products	N/A	1,024,000	N/A	1,440,000	N/A	1,524,000	N/A	1,498,000	N/A	1,822,000	N/A	1,581,000
TOTAL	801,634	689,022,000	748,172	760,956,000	732,700	770,928,000	727,638	693,475,000	653,023	637,713,000	696,160	712,318,000

N/A = Not available.

Source: San Joaquin Agricultural Commissioner Crop Reports.

TABLE VIII-3
PLANNING AREA SOIL PROPERTIES

Soil map symbol	Description	Land Capability Classifications	Likely prime land	Permeability	Wind erosion hazard	Planning Area map occurrence
B2	Guard sandy clay loam, drained	II	yes	moderately slow	NA	2
CB	Columbia fine sandy loam	II	yes	moderately rapid	slight	1,2
CC	Columbia fine sandy loam	II	yes	moderately rapid	slight	2
CF	Columbia fine sandy loam	II	yes	moderately rapid	slight	2
DC	Dello loamy sand, drained	III	no	rapid	high	1,2
DD	Dello clay loam	III	no	moderately slow	NA	1,2
DF	Dello sand	III	no	rapid	high	2
DH	Delhi loamy coarse sand	III	no	rapid	high	2,3,4,5
DKA	Delhi fine sand	III	no	moderately rapid	moderate	3,4
DKB	Delhi fine sand	III	no	rapid	high	3,4
DN	Veritas fine sandy loam, hardpan substratum	II	yes	moderately rapid	moderate	2,3
EB	Egbert silty clay loam, partially drained	II	yes	slow	NA	2
FC	Fluvaquents, frequently flooded	VII	no	slow	NA	2
GC	Grangeville clay loam	II	no	moderately slow	N/A	1
GS	Grangeville fine sandy loam	II	yes	moderately rapid	slight	2
GV	Grangeville fine sandy loam, drained	II	yes	moderately rapid	slight	1,2
ME	Merritt silty clay loam, partially drained	II	yes	moderately slow	moderate	2,5
MF	Merritt silty clay loam	II	yes	moderately	moderate	2
MN	Manteca fine sandy loam	III	no	moderately slow	moderate	1
MV	Manteca sandy loam	III	no	moderately rapid	moderate	2,3,4,5
RH	Ryde clay loam, drained	III	no	moderately slow	NA	5
SC	Tinnin loamy sand, hard- pan substratum	III	no	rapid	high	all
TS	Tinnin loamy coarse sand, drained	III	no	rapid	high	all
TT	Tinnin loamy coarse sand, loamy substratum	III	no	rapid	high	4
TW	Bisgani loamy coarse sand, partially drained	III	no	rapid	high	1,2,3,4
UF	Honcut fine sandy loam	I	yes	moderately rapid	moderate	1,3
VG	Honcut fine sandy loam	I	yes	moderately rapid	moderate	4,5
VH	Veritas fine sandy loam, hardpan substratum	II	yes	moderately rapid	moderate	1,3,4,5
VIC	Devries variant sandy loam	III	no	moderately rapid	moderate	3
VM	Manteca fine sandy loam	III	no	moderately rapid	moderate	4
V2	Valdez silt loam	III	no	moderately slow	slight	1
XB	Arents, saline-alkali	III	no	moderate	NA	2

Source: U.S. Department of Agriculture, Soil Conservation Service, 1985

Section 2 includes those portions of the Planning Area south of Yosemite Avenue and west of Airport Way. Significant portions in the southwest of Section 2 contain Class II Merritt soils (ME). Smaller occurrences of various other Class II soils occur throughout Section 2. These Class II soils are: Guard (BZ), Columbia (CB), Columbia (CC), Columbia (CF), Dello (DF), Veritas (DN), Egbert (EB), Grangeville (GS), Grangeville (GV), Merritt (ME) and Merritt (MF). Section 2 also contains the only nonarable soil in the Planning Area. Fluvaquents soil (FC) occurs in the southwest corner of the Planning Area.

Section 3 includes those portions of the Planning Area bounded on the east by Highway 99 and on the west by Airport Way. Significant portions throughout Section 3 contain Class II Veritas (VH) soils. Smaller areas of potentially Prime Farmland soils are Class I Honcut (VF) and Class II Veritas (DN). Both occur in the southern portion of Section 3.

Section 4 includes those portions of the Planning Area east of Highway 99. Significant portions of the area north of Alameda Street contain Class II Veritas soils (VH). A minor portion of the southern tip of Section 4 contains Class I Honcut soils (VG).

Section 5 includes the portions of the Planning Area north of Yosemite Avenue and west of Airport Way. Significant portions of Section 1 contain Class II Veritas soils (VH) which are potentially Prime Farmlands. VH soils occur in portions of the community of Lathrop and in areas adjacent to the Sharpe Army Depot. Minor portions of Section 1 also contain Class I Honcut (VG) and Class II Manteca soils (MN). The VG soil occurs adjacent to the west boundary of the Sharpe Army Depot and the MN soil occurs southwest of Lathrop.

Williamson Act

The California Land Conservation Act (Williamson Act), California Government Code Sections 51290 et seq., encourages conservation of agricultural lands by providing tax incentive to land owners who contract with the County to restrict land uses to agriculture and compatible uses. A significant amount of land in the Planning Area is currently restricted to agricultural use under Williamson Act contracts. Figure VIII-3 indicates that most of this land occurs in the southern and eastern portions of the Planning Area.

Water

The second principal factor for agricultural productivity in a region is the availability of water. Figure VIII-4 illustrates that agriculture in all but the western edge of the Planning Area is served by the South San Joaquin Irrigation District (SSJID). The SSJID currently provides water to irrigate 57,554 acres. Of that amount, 4,292 acres are within the City of Manteca. Approximately 44.96 square miles of the SSJID service area lies within the Planning Area. Another approximately 52.24 square miles lies east of the Planning Area and approximately 8.4 square miles lies south of the Planning Area.

The SSJID maintains an extensive storage and distribution system which includes the Goodwin Dam, five storage reservoirs, approximately 3.5 miles of Joint Main Canal, 9.2 miles at Main Supply Canal, 18.2 miles of Main Distribution Canal with 350 miles of laterals, and 80 miles of drainage ditch.

SSJID is a public agency providing water to all agricultural parcels of 40 acres or more. Landowners with parcels of less than 40 acres may enter private contracts to share water. The five-member SSJID Board of Directors is elected by all residents in the district on a one-person one-vote basis (Fondse pers. comm.).

Irrigation water for lands on the western edge of the Planning Area is provided by various private irrigation districts and private wells. Unlike public districts, such as SSJID, these private systems are not available to landowners as matter of right. The Boards of Directors are typically elected on a 1-acre one vote basis.

VEGETATION AND WILDLIFE RESOURCES

Biological Setting

Biological resources within the Planning Area may be found in either natural or altered habitats. Natural habitats constitute less than five percent of the Planning Area and fall into one of the following categories: riparian shrubland and woodland, freshwater marsh, ponds and closed sloughs, open river channels, and upland vegetation (U. S. Army Corps of Engineers, 1979). Natural habitats associated with water are found primarily in the southwest portion of the Planning Area along the San Joaquin River and Walthall Slough. This portion of the Planning Area is considered part of the Sacramento-San Joaquin Delta. Upland vegetation, primarily composed of annual plants, may be found scattered throughout the Planning Area (U. S. Army Corps of Engineers, 1979).

Altered habitats include cultivated areas and urbanized areas. Approximately 75 to 80 percent of the Planning Area is either cultivated or used for grazing and 15 to 20 percent is urbanized. Although subject to frequent human disturbance, these areas may still be valuable for wildlife.

Few significant natural areas occur in the vicinity of Manteca. Vernal pools, recognized as unique habitats in the Central Valley, have not been reported within the Planning Area (California Natural Diversity Data Base [CNDDB] 1985), and it is unlikely that vernal pools existed prior to agricultural development (Holland 1978).

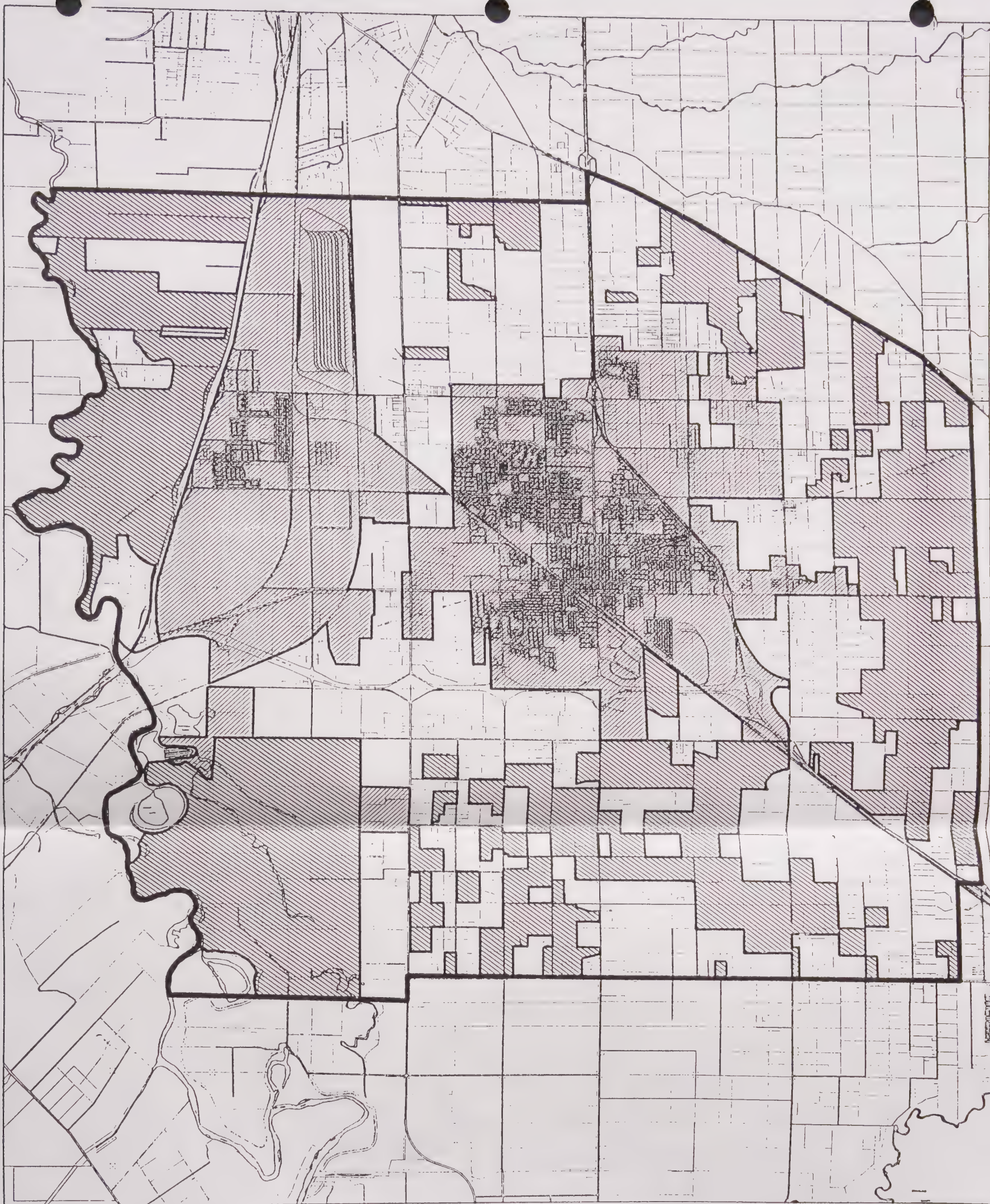
Circle Lake, a closed-off oxbow bend along the San Joaquin River, has been identified as a "Delta Significant Natural Resource Area" (Madrone Associates, 1980). The lake is located 0.75 mile upriver from the mouth of Walthall Slough and is considered an important fish spawning area.

No significant natural areas have been identified for this area by the California Natural Areas Coordinating Council (Hood, 1982), the Landscape Preservation Study (Kunit and Calhoun, 1974), or the Areas of Significant Biological Importance maps (Jones & Stokes Associates, 1979).

Habitat Description

Natural Habitats

Riparian Shrubland and Woodland. Riparian shrublands and woodlands are water-dependent habitats that occur along the levees and banks of waterways. These habitats are frequently thin strips of vegetation between


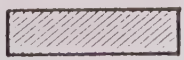
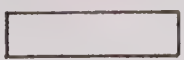


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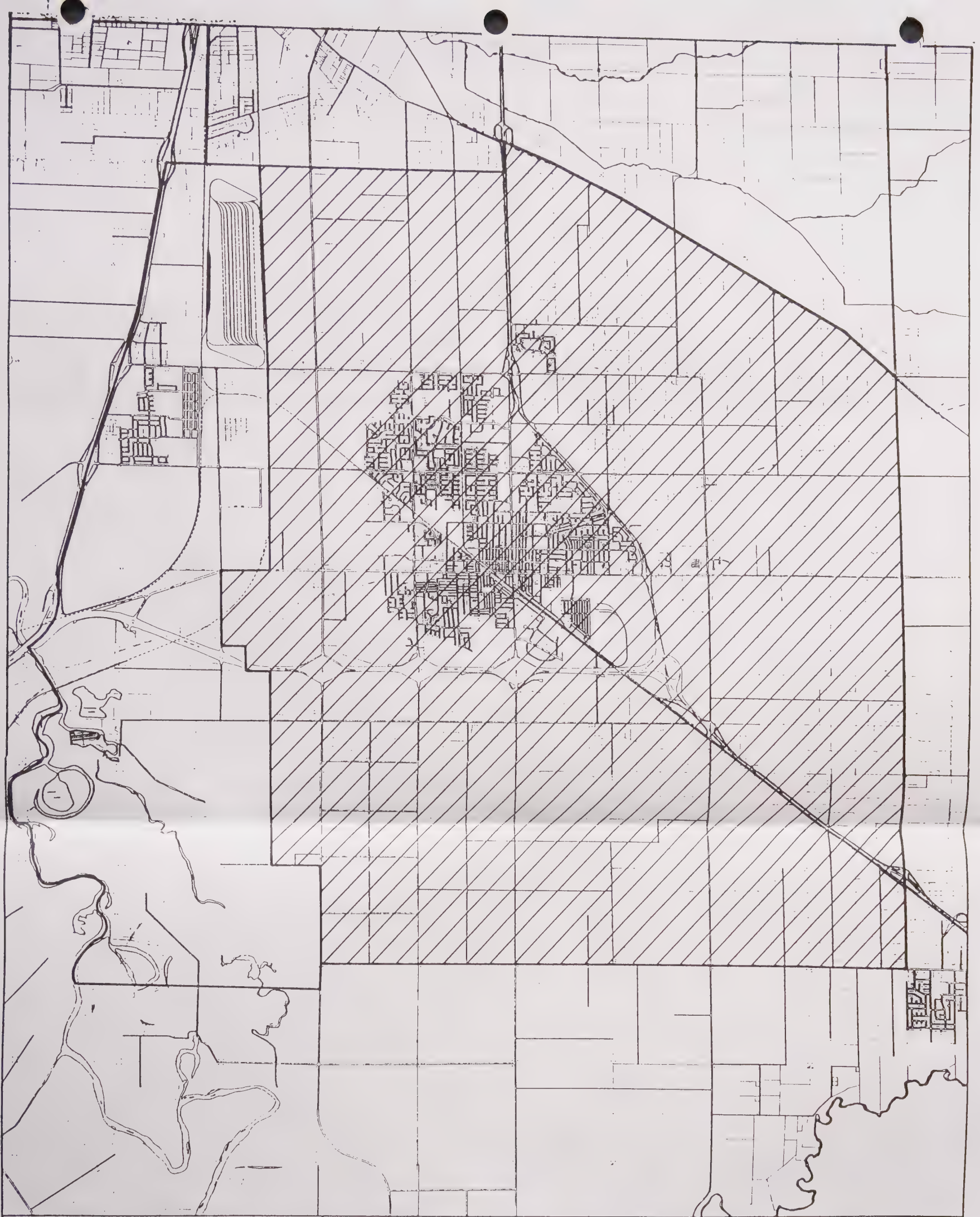


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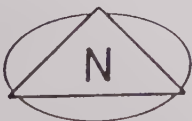
FIGURE VIII-3. AGRICULTURAL PRESERVE AND
WILLIAMSON ACT CONTRACT LANDS

-  LANDS UNDER WILLIAMSON ACT CONTRACT
-  AREAS NOT IN AGRICULTURAL PRESERVE
-  AREAS WITHIN AGRICULTURAL PRESERVE
BUT NOT UNDER WILLIAMSON ACT CONTRACT

Source: San Joaquin County Planning Department, 1985



MANTECA
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General Plan



0 1/2 1 2
Scale in Miles

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FIGURE VIII-4. SOUTH SAN JOAQUIN IRRIGATION
DISTRICT SERVICE AREA



SOUTH SAN JOAQUIN IRRIGATION DISTRICT
SERVICE AREA WITHIN PLANNING AREA

Source: South San Joaquin Irrigation District, 1985

the waterways and adjacent upland habitats. Riparian shrubland is subject to more frequent flooding than is riparian woodland. If left undisturbed, most riparian shrubland would eventually develop into riparian woodland. Cottonwoods, sycamores, white alder, valley oaks, willows, and Oregon ash are common trees in riparian zones of this area. Riparian shrubland is frequently dominated by smaller willows, blackberries, buttonbush, wild rose, and wild grapes (see Table VIII-4 for scientific names).

The most extensive riparian woodlands within the Planning Area are located along Walthall Slough and along the San Joaquin River upriver of the mouth of Walhall Slough (U.S. Army Corps of Engineers, 1979). Riparian woodland supports a high diversity of wildlife reflecting the great habitat diversity provided by trees, dead snags, shrubby understory, and varied ground cover adjacent to open waters and marshland. The multilayered woodland provides many different places, or niches, for nesting, feeding, and cover for different wildlife species.

The deciduous trees and shrubs of the riparian woodland contribute to a moist litter layer underneath. This layer is excellent habitat for a large variety of invertebrates, reptiles, amphibians, and small mammals; all important components of a rich food web that supports many larger animals (Madrone Associates, 1980). Reptiles and amphibians likely to occur in this habitat are western fence lizards, valley garter snakes, Pacific gopher snakes, Pacific treefrogs, and western toads.

Riparian woodland may support a diverse assemblage of birds. It is considered essential habitat for at least 34 species of birds. These include hole-nesters such as yellow-bellied sapsuckers, tree swallows, and wood ducks; insect feeders such as black phoebes and warbling vireos; bark gleaners such as white breasted nuthatches and plain titmice; and high canopy nesters such as great blue herons and red-shouldered hawks (Madrone Associates, 1980). Birds also use the thickets of riparian shrubland for foraging and as cover. The linear arrangement of shrubby growth adjacent to waterways provides a protected travel corridor for small birds during their daily or migratory movements.

Mammal activity is likely to be diverse as well. Bats such as the hoary bat glean insects; striped skunks, raccoons, minks, occasional western gray squirrels and other native mammals forage and find cover in the woodlands. Black rats and house mice, both introduced species, are also abundant in this habitat throughout the Delta.

Many of the animals that frequent riparian woodland also use riparian shrubland, especially if the two types are found in adjacent habitat. The diversity of cover types and denning or nesting opportunities are much reduced in shrubland.

Freshwater Marshes. Freshwater marshes are characterized by submerged aquatic plants, floating plants, and emergent vegetation. They are primarily associated with the unleveed channel islands along sloughs and oxbows of the San Joaquin River. The vegetation is often dominated by common tules, broad-leaved rattail), and common reedgrass. Floating plants are found in stagnant waters, and include water weed, water hyacinth, and parrot feather.

TABLE VIII-4

COMMON PLANTS AND ANIMALS OF THE MANTECA AREA

<u>Common Name</u>	<u>Scientific name</u>
TREES	
Cottonwood	<u>Populus fremontii</u>
Oregon ash	<u>Fraxinus latifolia</u>
Sycamore	<u>Platanus racemosa</u>
Valley oak	<u>Quercus lobata</u>
White alder	<u>Alnus rhombifolia</u>
Willow	<u>Salix</u> spp.
SHRUBS	
Blackberry	<u>Rubus</u> spp.
Buttonbush	<u>Cephalanthus occidentalis</u>
Wild grape	<u>Vitis californica</u>
Wild rose	<u>Rosa californica</u>
HERBACEOUS PLANTS	
Broad-leaved cattail	<u>Typha latifolia</u>
Cheeseweed	<u>Malva parviflora</u>
Yellow cowlily	<u>Nuphar polysepalum</u>
Common duckweed	<u>Lemna</u> sp.
Common foxtail	<u>Hordeum stebbinsiis</u>
Wild oats	<u>Avena</u> sp.
Parrot feather	<u>Myriophyllum brasiliense</u>
Pondweed	<u>Pota mogetan</u> sp.
Common reedgrass	<u>Phragmite communis</u>
Italian ryegrass	<u>Lolium multiflorum</u>
Common tule	<u>Scirpus acutus</u>
Water hyacinth	<u>Eichhornia crassipes</u>
Waterweed	<u>Elodea</u> sp.
AMPHIBIANS	
Pacific treefrog	<u>Hyla regilla</u>
Western toad	<u>Bufo boreas helophilus</u>
REPTILES	
Western pond turtle	<u>Clemmys marmorata</u>
Western fence lizard	<u>Sceloporus occidentalis</u>
Valley garter snake	<u>Thamnophis sirtalis</u>
Pacific gopher snake	<u>Pituophis melanoleucus</u>
Common king snake	<u>Lampropeltis getulus</u>

TABLE VIII-4 (Continued)

BIRDS

Pied-billed grebe	<u>Podilymbus podiceps</u>
Western grebe	<u>Aechmophorus occidentalis</u>
Greater white-fronted goose	<u>Anser albifrons</u>
Snow goose	<u>Chen caerulescens</u>
Ross' goose	<u>Chen rossii</u>
Northern pintail	<u>Anas acuta</u>
American widgeon	<u>Anas americana</u>
Wood duck	<u>Aix sponsa</u>
Ruddy duck	<u>Oxyura jamaicensis</u>
Black-shouldered kite	<u>Elanus caeruleus</u>
Red-tailed hawk	<u>Buteo lagopus</u>
Red-shouldered hawk	<u>Buteo lineatus</u>
American kestrel	<u>Falco sparverius</u>
California quail	<u>Callipepla californica</u>
Ring-necked pheasant	<u>Phasianus colchicus</u>
Great blue heron	<u>Ardea herodias</u>
Sandhill crane	<u>Grus americana</u>
Sora	<u>Porzana carolina</u>
American coot	<u>Fulica americana</u>
Herring gull	<u>Larus argentatus</u>
California gull	<u>Larus californicus</u>
Mourning dove	<u>Zenaidura macroura</u>
Yellow-bellied sapsucker	<u>Sphyrapicus varius</u>
Black phoebe	<u>Sayornis nigricans</u>
Tree swallow	<u>Tachycineta bicolor</u>
Plain titmouse	<u>Parus inornatus</u>
White-breasted nuthatch	<u>Sitta carolinensis</u>
Marsh wren	<u>Cistothorus palustris</u>
Northern mockingbird	<u>Mimus polyglottos</u>
American robin	<u>Turdus migratorius</u>
Warbling vireo	<u>Vireo gilvus</u>
Yellow-rumped warbler	<u>Dendroica coronata</u>
Red-winged blackbird	<u>Agelaius phoeniceus</u>
Northern oriole	<u>Icterus galbula</u>
House finch	<u>Carpodacus mexicanus</u>
Song sparrow	<u>Melospiza melodia</u>

MAMMALS

Virginia opossum	<u>Didelphis virginiana</u>
Hoary bat	<u>Lasiurus cinereus</u>
Western gray squirrel	<u>Sciurus griseus</u>
Beaver	<u>Castor canadensis</u>
Muskrat	<u>Ondatra zibethicus</u>
Black rat	<u>Rattus rattus</u>
House mouse	<u>Mus musculus</u>
Raccoon	<u>Procyon lotor</u>
Long-tailed weasel	<u>Mustela frenata</u>
Mink	<u>Mustela vison</u>
Striped skunk	<u>Mephitis mephitis</u>
River otter	<u>Lutra canadensis</u>

Freshwater marshes are important habitat for nesting and wintering waterfowl and shorebirds. Characteristic reptiles and amphibians likely to occur in valley marshes are garter snakes, western pond turtles, and western toads. These, along with fish, shellfish, and crayfish are prey for ducks, wading birds, raccoons, mink, weasels and other larger vertebrates.

Marsh vegetation provides cover and nesting habitat for birds such as American coots, pied-billed grebes, soras, marsh wrens, and red-winged blackbirds. The density of tules in the marshes determines which bird species use the habitat. Denser stands are favored by rails such as the sora and marsh wrens. More dispersed stands, with areas of open water and mudflat, are used by shorebirds and large wading birds (Madrone Associates, 1980). Song sparrows nest in the bushes and tree swallows hunt insects in the air above. Ducks that winter on the open water, such as pintails and American widgeons, feed and find cover where the marshy vegetation is not too dense.

Cattails and tules are an important food source for muskrat and provide an alternative diet for beavers. Most beaver lodges are constructed of sticks and are hidden in cattails or tules. Muskrats may also lodge in these marshes.

Ponds and Closed Sloughs. Changes in seasonal or yearly water flow patterns form natural ponds along sloughs or in old overflow channels along the San Joaquin River. The vegetation in these areas primarily consists of floating plants, such as common duckweed and introduced water hyacinth, which are protected from the wind and flowing currents. Submergent vegetation such as pondweed or yellow cornlily may also be present.

Artificial ponds are also found near the San Joaquin River and in scattered locations throughout the Planning Area. Although these are frequently kept clear of vegetation, they are usually of value to resident and migrating wildlife.

Wildlife use of these habitats varies with the amount of open water and adjacent marsh, the extent and type of vegetation browsing along the banks, and the surrounding land use (Madrone Associates, 1980). Wildlife species that inhabit these areas are similar to those that use freshwater marshes and river channel habitats.

River Channels. Channel velocity, wind, and recreational use determine the extent of vegetation that may be found in the San Joaquin River. Where currents are abnormally high floating plants rarely persist, and emergent vegetation is confined to the channel banks. Where channel velocities are very slow the vegetation is similar to that of ponds and closed sloughs.

Wintering birds may rest and feed on the open waters of the river, which are protected from frequent strong winds and from commercial or recreational boat traffic. These birds, including American coots, western grebes, ruddy ducks, and several species of gulls, feed primarily on fish and aquatic invertebrates. Beaver, muskrat, and river otters may swim in the main river channels in transit to their more typical bankside habitats.

Upland Habitats. Scattered throughout the Planning Area are small patches of undeveloped land. The largest area of undeveloped land is approximately 180 acres and is located near the intersection of Airport Way and

Almondwood Drive. Other significant areas of undeveloped land with upland vegetation are located on the inside of river bends along the San Joaquin River. These areas are dominated by a number of annual grasses and other herbaceous plants such as wild oats, common foxtail, cheeseweed, and Italian ryegrass. Due to the restricted size and distribution of these area and the abundance of surrounding agriculture, the wildlife species composition is not greatly different from man-altered agricultural habitats.

Altered Habitats

Agricultural Areas. Agriculture dominates the Planning Area. The value of this habitat to wildlife depends on several factors such as the type of crop, irrigation systems, pesticide use, farming practices, and the surrounding land use (Madrone Associates, 1980).

In the late summer, flooding of fields attracts migratory birds. During the fall and winter, agricultural fields are important habitat for shorebirds and large flocks of geese, swans, and ducks. Most open fields may receive some waterfowl use, but cornfield stubble, fallow fields and bare, plowed fields are most consistently valuable to wintering birds. Winter food is supplied by unharvested grain, weed seeds, young sprouts, insects, worms, and grubs in the field. Greater white-fronted geese, snow geese, and Ross' geese depend on cornfields for wintering grounds.

Suitable wintering habitat is a critical limiting factor for many Pacific Flyway waterfowl populations. The Center Valley is habitat for roughly 60 percent of all Pacific Flyway waterfowl and for 91 percent of all waterfowl wintering in California (U.S. Fish and Wildlife Service, 1977).

Pasture land that is not cultivated or mowed provides a relatively stable habitat permitting year-round use; it also provides abundant cover and insect and plant foods. North of the Planning Area sandhill cranes are known to prefer this habitat for roosting and may possibly occur near Manteca as well.

Unflooded fields and pastureland provide habitat for the three most important gamebirds in the Delta: the native California quail, mourning dove, and the introduced ring-necked pheasant. The abundance of these birds on agricultural lands is increased by the proximity to riparian vegetation (Madrone Associates, 1980).

Orchards and vineyards are used by songbirds as feeding and nesting habitat, particularly during the spring or summer. Insecticide or herbicide application during times of heavy bird use may reduce the available food source and limit the habitat value.

Birds-of-prey hunt over all of the above habitats in agricultural lands. Common birds-of-prey found in the project area are black-shouldered kites, red-tailed hawks, and American kestrels.

Urban and Developed Areas. Despite significant disturbance, urban and developed areas provide habitat for several species of wildlife which are adaptable to human presence. Trees and lawns attract songbirds such as American robins, house finches, yellow-rumped warblers, mockingbirds, and

northern orioles. Raccoons and opossums have been recorded in developed areas. Less adaptable species primarily inhabit adjacent, less developed areas, but may visit urban areas regularly.

Threatened and Endangered Species

The CNDDB has one record of a threatened or endangered species occurring within the Planning Area--a recorded sighting of the Delta coyote-thistle. In addition, the Manteca vicinity provides habitat that may be used by five other important species: slough thistle, Aleutian Canada goose, Swainson's hawk, greater sandhill crane, and San Joaquin kit fox.

Plants

Delta Coyote-Thistle. The Delta coyote-thistle (*Eryngium racemosum*) is a state-listed endangered species under the State Endangered Species Act and is a candidate species (Category 2) for federal listing under the Federal Endangered Species Act. Its habitat is poorly documented but has been found historically in vernal pools and seasonally wet areas within 15 miles of Manteca (Constance 1979). The Delta coyote-thistle has been reported from near the intersection of Interstate 5 and State Highway 120. This location was surveyed in 1984 by the California Department of Fish and Game (CDFG) staff, and the habitat was not found (CNDDB, 1985). The Delta coyote-thistle has not been observed in the field for many years (Bartel pers. comm.), and it may now be extinct (U. S. Fish and Wildlife Service, 1985). Although it is unlikely to be found within the Planning Area, the Delta coyote-thistle is inconspicuous and may still persist in the Delta region (Constance, 1979).

The slough thistle (*Cirsium crassicalue*) is a candidate species (Category 2) for listing under the Federal Endangered Species Act. It inhabits shallow sloughs and wet places along the San Joaquin River. Slough thistle populations have been located two miles northwest of the Lathrop Bridge along the San Joaquin River (CNDDB, 1985) and between the Sharpe Army Depot and the San Joaquin River (U.S. Army Corps of Engineers, 1979).

The species was not found during field work at the site in 1974 (CNDDB, 1985), and the habitat may no longer be suitable due to intensive agriculture and canal modification. Development plans for projects near the San Joaquin River should incorporate on-site floristic surveys for this species to determine its actual occurrence.

Animals

Aleutian Canada Goose. The Aleutian Canada goose (*Branta canadensis leucopareia*), a federally listed endangered subspecies, nests in Alaska and winters in the Central Valley of California. Major wintering areas are near Colusa and Modesto. Occasionally, these geese may visit agricultural fields on their way south. These stopover locations are typically well-defined pastures and grain fields and are not known to occur within the Planning Area (Sorenson pers. comm.).

Swainson's Hawk. The Swainson's hawk (*Buteo swainsoni*) is a state-listed endangered species and a federal candidate (Category 2) species. There are at least five Swainson's hawk nests immediately south of the Planning Area

near the confluence of the San Joaquin and Stanislaus Rivers. Swainson's hawks have also nested approximately six miles northeast of Manteca (Bloom, 1980).

The CNDDDB has no record of this species nesting in the Planning Area (CNDDDB, 1985), although potential nesting habitat does occur in the area. No nests were observed during a field reconnaissance in October 1985, nor were any Swainson's hawks observed flying in the area.

The species may possibly use the Planning Area. In the Central Valley, this species is most frequently found in agricultural areas within one mile of a riparian zone. Isolated trees or riparian areas are preferred for nesting. Nests may be found in valley oaks, cottonwoods, willows, or eucalyptus trees. Alfalfa and hay fields are most frequently used as hunting habitats as they support suitable microtine rodent populations for hawks to feed on.

Although habitat destruction is not the most serious threat facing Swainson's hawks, it may be a significant factor in the decline of the Central Valley population. Loss of habitat is related to the conversion of natural habitat and pastures to truck crops. Nesting habitat in the form of isolated trees on agricultural lands is also decreasing. Plowing beneath these trees ensures removal of replacement seedlings; old, dying trees survive at the discretion of the landowner (Bloom, 1980). The presence of specific crops such as alfalfa, wheat, and hay, frequently determines whether the Swainson's Hawk will successfully nest in an area. If economic factors dictate that other crops such as cotton or orchards are more profitable, available foraging habitat will continue to decrease and Swainson's hawks will decline proportionately (Bloom, 1980).

Greater Sandhill Crane. Manteca lies within the wintering range of the greater sandhill crane (Grus canadensis tabida), a state-listed threatened subspecies. Although the Planning Area is not a major winter concentration area, these birds may stop over here on their migration south to other more important areas. No cranes were observed in the Planning Area during the October 1985 field reconnaissance. Winter concentrations occur where shallow water and pasturelands provide loafing and roosting sites, and where agricultural areas provide food, principally cereal grains such as rice, sorghum, barley, and corn (Littlefield, 1982). Although loss of habitat to agricultural conversion is cited as an important threat to cranes in California, this is most important on the breeding grounds (Littlefield, 1982). Increases in orchard crops may decrease the availability of roosting areas (i.e., pasturelands) on the wintering grounds.

San Joaquin Kit Fox. The San Joaquin kit fox (Vulpes macrotis mutica) is a federally-listed endangered subspecies and a statelisted threatened subspecies. This subspecies has been observed west of Interstate 5 near the Planning Area (Gifford pers. comm.). No kit foxes were seen during the October 1985 field reconnaissance, although the habitat within the Planning Area is suitable. Kit foxes prefer uncultivated areas, but they are able to exist with some types of irrigated agriculture. Canal levees, highway and railway berms, culverts under highways, and remnant drainages in agricultural areas are possible den sites if abundant prey exists in the vicinity (Morrell, 1975).

Fruit and nut orchards are more suitable habitat than irrigated fields because of weed control techniques and the lack of cultivation. The success of kit foxes in orchards is unknown (U. S. Fish and Wildlife Service, 1983).

Kit fox populations in the Planning Area habitats are considered marginal, and loss of optimal natural habitat to agricultural and urban developments is still considered the greatest known threat to the San Joaquin kit fox. Any projects that may result in habitat modification must be reviewed on a case-by-case basis by the CDFG to determine potential impacts to this species (Gifford pers. comm.).

EXTRACTIVE RESOURCES

At the present time, the Planning Area's primary extractive resources are natural gas and sand.

Natural Gas

Active natural gas fields are located in the McMullin Ranch area in the southwest corner of the Planning Area (Figure VIII-5). San Joaquin County does not consider natural gas extraction a major land use for planning purposes because of the minimum land surface development. It is important to retain the opportunity for future extraction because the need for energy sources is increasing. In addition, producing wells are a source of income (through taxes) for the County.

Gas well drilling is regulated by zoning ordinance and is permitted in San Joaquin County with an approved development plan or use permit, depending on the general plan designation of the area. To get a permit, operators must present a resource study to the County for evaluation. Applications for natural gas development are also subject to environmental review under California Environmental Quality Act (CEQA). Natural gas developers are required by both the State and the County to be bonded (Walker pers. comm.).

In January 1986, the Manteca City Council rejected a lease agreement with an oil drilling company for a drilling site near the City's sewer treatment plant pending completion in 1987 of the treatment plan expansion project.

The initial drilling of gas wells causes a noise nuisance and lights are often used to facilitate 24-hour operation. Once a well is installed, however, noise and lights are not a problem.

The major hazards associated with drilling gas wells are fires and blowouts. Potential impacts of these hazards include damage to property, danger of human injury, contamination of ground or surface waters, and disruption of surface land uses. The severity of the impact would depend on land uses in the area. Once a well is drilled, the potential problems include gas leaks, wastewater generation, and subsidence. Even considering these potential problems, development of natural gas wells in urban areas is likely (San Joaquin County Planning Department, 1976).

Sand and Gravel

The only sand and gravel operator in the Planning Area is Brown Sand and Gravel. Approximately two acres per year of process sand are excavated



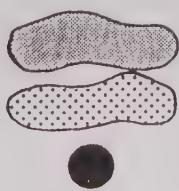
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Scale in Miles

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JONES & STOKES ASSOCIATES

FIGURE VIII-5. NATURAL GAS FIELDS / SAND & GRAVEL
OPERATIONS



ACTIVE NATURAL GAS FIELDS

ABANDONED NATURAL GAS FIELDS

OPERATING SAND & GRAVEL EXCAVATION SITE

Source: San Joaquin County Planning Department, 1976

from the Company's 350-acre site on East Woodward Road. The remainder of the site is currently in agricultural use. Oakwood Lake Resort was started as reclamation on the portion of the site that has been excavated (50-60 acres). (Oliva pers. comm.). Figure VIII-5 shows the location of this operation.

Factors Influencing Sand and Gravel Development

The widespread use of sand and gravel in the construction of roads and buildings, combined with the high transportation costs of these materials, makes deposits near metropolitan areas particularly valuable. In many locations such deposits have been preempted by development before this resource could be utilized, thus depriving developing areas of lower cost building materials. Stringent nuisance ordinances also influence the development of mineral resources, and can force companies to abandon accessible, high quality deposits.

Surface Mining and Reclamation Act

The State Surface Mining and Reclamation Act requires cities and counties to regulate specified mining operations, with approval of a reclamation plan as a condition for issuance of a mining permit. Local ordinances adopted to implement this requirement must be reviewed and certified by the State Mining and Geology Board as to their conformity with state law and the Board's policies and procedures.

The Act also requires the State Geologist to classify mineral areas in the state and the State Mining and Geology Board to designate mineral deposits of regional or statewide significance.

The State Geologist classifies land according to five zones:

- MRZ-1 Areas where adequate information indicates no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2 Areas where adequate information indicates that significant deposits are present, or where it is judged that a high likelihood for their presence exists.
- MRZ-3 Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4 Areas where available information is inadequate for assignment to any other MRZ zone.
- SZ Areas containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance.

The purpose of the classification and designation process is to ensure that mineral deposits are available when needed. Counties and cities containing areas classified as Mineral Resource Zones 2 or 3 (MRZ-2 or MRZ-3), Scientific Zone (SZ), or designated as mineral deposits of regional or statewide significance, must amend their general plans to include the state information on the mineral deposits and policies for managing them (California Division of Mines and Geology, 1983).

As a guideline for establishing compatible land uses on or adjacent to mineral lands classified as MRZ-2 or designated as areas of regional or statewide importance, the following categories are provided by the California Division of Mines and Geology (1983):

1. Incompatible - Land uses which require a high public or private investment in structures, land improvements and landscaping, and which would prevent mining because of the higher economic value of the land and its improvements. Examples of this category are: high density residential with high unit value, public facilities, intensive industrial and commercial operations.
2. Compatible - Land uses which require low public or private investment in structures, land improvements and landscaping and which would be amenable to mining because of the low economic value of the land and its improvements. Examples of this category are: very low density residential (public/commercial), agricultural, silvicultural, grazing, open space.
3. Interim - Land uses which require structures, land improvements and landscaping of a limited useful life, and from an economic and political standpoint can be converted to mining at the end of that limited life. The period of interim use should be compatible with the orderly and timely production of mineral resources and the useful life of the improvements.
4. Buffer - Land uses which provide sufficient distance and/or barriers between mining and incompatible land uses. Such barriers can mitigate the noise, dust, vibration and visual impacts of mining, and provide for public safety.

The State Geologist has conducted a mineral land classification study for San Joaquin County over the last two years, and the study will be presented to the State Mines and Geology Board for formal adoption of the mineral land classifications on May 13, 1988. The Brown Sand and Gravel operations are the only active mineral site in the Planning Area.

In addition to protecting aggregate resources for extraction, measures should be taken to ensure minimal disturbance to the environment from resource extraction. Mining and reclamation plans should be required for all mining operations. Lands can be reclaimed for residential, commercial, industrial, open space, conservation, agriculture, or other uses which do not adversely impact public health and safety.

AIR RESOURCES

Air Quality

Setting

The City of Manteca lies within the San Joaquin Valley, which is bounded by the coastal mountain ranges on the west and the Sierra Nevada range on the east. The Carquinez Strait is a sea level gap in the coastal range; the strait is 55 miles northwest of the Planning Area, and the intervening

terrain is flat. The prevailing wind direction in the Planning Area is from the northwest, resulting from marine breezes through the Carquinez Strait. During winter, the sea breeze diminishes. Figure VIII-6 shows the prevailing wind flow pattern in the San Joaquin Valley Air Basin. Table VIII-5 shows climatological data for San Joaquin County.

TABLE VIII-5
CLIMATOLOGICAL DATA FOR SAN JOAQUIN COUNTY

<u>Period</u>	<u>Average Temperature</u>			<u>Average Rain</u> <u>(Inches)</u>	<u>Average Humidity</u>		
	<u>Min.</u>	<u>Mean</u>	<u>Max.</u>		<u>4 a.m.</u>	<u>Noon</u>	<u>4 p.m.</u>
Jan.	37.0	45.7	53.4	2.87	89%	85%	76%
Apr.	46.9	58.9	71.0	1.04	82%	60%	50%
Jul.	58.4	74.1	90.4	T	78%	43%	34%
Oct.	49.6	62.1	74.8	0.69	79%	51%	44%
Year	47.9	60.1	78.1	14.11	82%	58%	52%

Source: U.S. Weather Bureau

Emissions

Urban emission sources in the San Joaquin County area are a primary source of two existing air quality problems. Federal and state air quality standards for ozone and carbon monoxide (CO) are currently being exceeded (Table VIII-6). As a consequence, San Joaquin County has been designated as a "nonattainment area" with respect to the federal ozone and CO standard.

Table VIII-7 lists the sources of emissions that contribute to the ozone and carbon monoxide air quality problems. The data shown in Table VIII-7 include estimates of current year emissions and projections of future year emissions. The data are disaggregated by emission source category.

Air Quality Standards

The federal Clean Air Act established air quality standards for several pollutants, and requires areas that violate these standards to prepare and implement plans to achieve the standards by certain specified deadlines. The deadline for attaining both the ozone and CO standards in San Joaquin County was December 31, 1987. San Joaquin County fell just short of attainment for ozone in 1987. In 1987, the federal Environmental Protection Agency (EPA) adopted new standards for fine particulates. San Joaquin County is not in attainment of the standards.

The counties within the San Joaquin Valley Air Basin are preparing a basin-wide implementation plan to achieve federal and state air quality standards. Recently enacted federal legislation requires that areas in nonattainment of the ambient air quality standards reduce emissions three percent annually from the each previous year until attainment is reached.

Both the State of California and the federal government have established a variety of ambient air quality standards. The state one-hour ozone standard is 0.10 ppm (parts per million, by volume), not to be equaled or exceeded.

TABLE VIII-6

SUMMARY OF AIR QUALITY MONITORING DATA FOR SAN JOAQUIN COUNTY

Monitoring Station	Parameter	Carbon Monoxide							Ozone						
		1978	1979	1980	1981	1982	1983	1984	1978	1979	1980	1981	1982	1983	1984
Hazelton Street ³	Peak hour value ¹	17.0	18.0	18.0	14.1	16.0	17.0	9.0	0.08	0.14	0.14	0.14	0.12	0.15	0.14
	Peak 8-hour value ¹	11.3	10.5	13.1	7.5	8.6	9.7	5.3	NA	NA	NA	NA	NA	NA	NA
	Days above standard ²	1	2	1	0	0	1	0	0	1	1	4	0	4	2
Lodi-Ham Lane ⁴	Peak hour value ¹	17.0	17.0	10.0	9.0	12.0			0.15	0.14	0.14	0.13	0.13		
	Peak 8-hour value ¹	9.4	6.6	4.9	4.0	7.0			NA	NA	NA	NA	NA		
	Days above standard ²	1	0	0	0	0			13	5	6	1	1		
Union Island ⁵	Peak hour value ¹	2.0	4.0	2.0					0.16	0.13	0.10				
	Peak 8-hour value ¹	1.4	2.0	1.3					NA	NA	NA				
	Days above standard ²	0	0	0					21	3	0				
Stockton-4SE/CA Youth Center ⁶	Peak hour value ¹									0.15					
	Peak 8-hour value ¹									NA					
	Days above standard ²									7					
Ripon-Fire Station ⁶	Peak hour value ¹									0.14					
	Peak 8-hour value ¹									NA					
	Days above standard ²									4					
Meriposa ⁷	Peak hour value ¹													0.15	0.15
	Peak 8-hour value ¹													NA	NA
	Days above standard ²													6	9
Claremont ⁸	Peak hour value ¹					18.0	16.0	16.0							
	Peak 8-hour value ¹					11.5	12.1	7.8							
	Days above standard ²					2	2	0							

NA = Not applicable.

¹ Peak hour and peak 8-hour values given as parts per million by volume (ppm).² For ozone, days with a peak 1-hour value exceeding the federal primary standard of 0.12 ppm; for carbon monoxide, days with a peak 8-hour average value exceeding the federal primary and state standards of 9 ppm.³ No carbon monoxide data reported for June-October 1978. No ozone data reported for June-December 1978, January-April 1979, October-December 1979, January-April 1980.⁴ No carbon monoxide data reported for January-November 1978, February-October 1979, April-October 1980, December 1980, January-February 1981, May-October 1981, May-September 1982. No ozone data reported for January-May 1978, October-December 1979, January-April 1980, November-December 1980, January-April 1981, November-December 1981, January-April 1982, October-December 1982.⁵ Station closed in June 1980.⁶ Special study monitoring. No ozone data reported for January-April 1979, October-December 1979.⁷ No ozone data reported for January-May 1983, November-December 1983.⁸ Special study monitoring, no carbon monoxide data reported for January-November 1982, May-October 1983, March-October 1984.

Source: California Air Resources Board 1979-1985.

FIGURE VIII-6. WIND FLOW IN THE SAN JOAQUIN VALLEY AIR BASIN

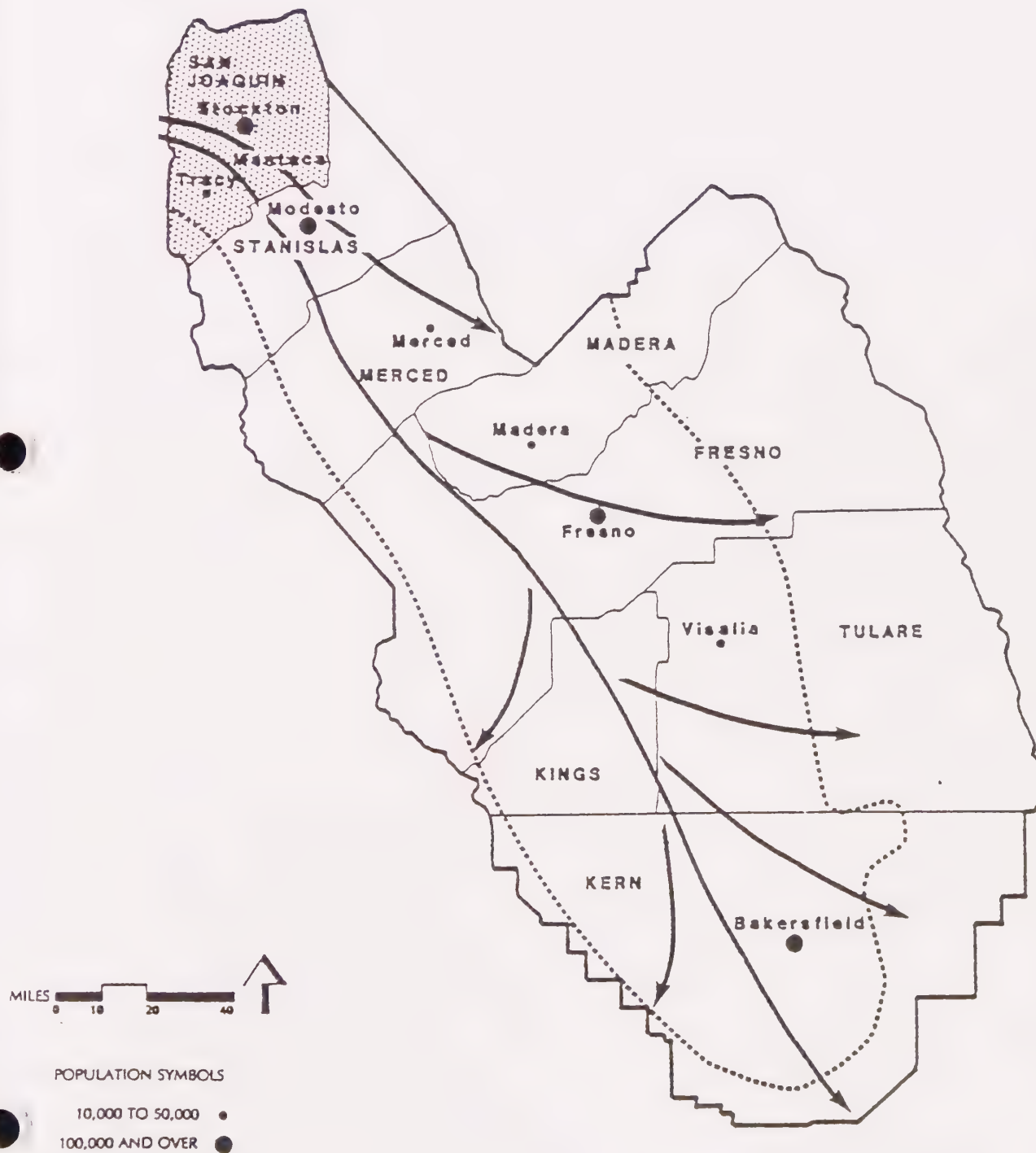


TABLE VIII-7

Emissions Projections for San Joaquin County in Tons Per Day and Percent of Total

Source Category	Reactive Organic Compounds								Nitrogen Oxides								Carbon Monoxide							
	1985		1990		1995		2000		1985		1990		1995		2000		1985		1990		1995		2000	
	tn/dy	percent	tn/dy	percent	tn/dy	percent	tn/dy	percent	tn/dy	percent	tn/dy	percent	tn/dy	percent	tn/dy	percent	tn/dy	percent	tn/dy	percent	tn/dy	percent	tn/dy	percent
Fuel Combustion	8.63	1.13%	8.70	1.26%	8.76	1.31%	8.82	1.35%	13.39	24.43%	14.74	27.02%	16.17	27.84%	17.59	28.11%	1.79	0.72%	1.99	0.88%	2.19	0.97%	2.39	1.01%
Agricultural Waste Burning	2.11	3.80%	2.15	3.86%	2.20	3.94%	2.40	3.95%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	30.84	12.16%	30.69	13.59%	32.49	14.33%	34.26	14.42%
Other Waste Burning	0.19	0.34%	0.22	0.40%	0.23	0.40%	0.25	0.41%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	4.74	1.92%	5.18	2.29%	5.62	2.48%	6.05	2.55%
Solvent Use	0.03	15.89%	10.57	19.00%	11.87	20.50%	13.17	21.70%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
Petroleum Process, Storage and Transfer	2.00	3.60%	1.96	3.52%	1.92	3.32%	1.88	3.10%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
Industrial Processes	1.45	2.61%	1.76	3.16%	2.11	3.64%	2.46	4.05%	0.05	0.09%	0.07	0.13%	0.08	0.14%	0.10	0.16%	0.04	0.02%	0.04	0.02%	0.05	0.02%	0.05	0.02%
Pesticide Application	14.94	26.88%	14.97	26.91%	15.00	25.90%	15.03	24.77%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
Farming Operations	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
Construction & Demolition	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
Entrained Road Dust From Paved Sources	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
Entrained Road Dust From Unpaved Sources	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
Unplanned Fires	0.04	0.07%	0.04	0.07%	0.04	0.07%	0.04	0.07%	0.01	0.02%	0.01	0.02%	0.01	0.02%	0.01	0.02%	0.51	0.21%	0.51	0.23%	0.51	0.22%	0.52	0.22%
SUBTOTAL FOR STATIONARY SOURCES	38.19	54.32%	32.37	58.18%	34.21	59.07%	36.05	59.40%	13.45	24.54%	14.82	27.17%	16.26	28.00%	17.70	28.29%	37.12	15.03%	38.41	17.01%	40.86	18.02%	43.27	18.21%
On-Road Vehicles	17.04	30.66%	14.32	25.74%	14.00	24.31%	14.37	23.68%	27.90	50.91%	25.68	47.08%	26.87	46.26%	29.03	46.40%	160.01	64.78%	133.84	59.28%	127.95	56.42%	132.04	55.56%
Off-Road Vehicles	4.40	8.06%	4.91	8.82%	5.34	9.22%	5.75	9.47%	0.93	1.70%	1.03	1.89%	1.13	1.95%	1.24	1.98%	17.65	7.15%	19.34	8.57%	21.00	9.26%	22.62	9.52%
Aircraft	0.31	0.56%	0.34	0.61%	0.37	0.64%	0.41	0.68%	0.20	0.36%	0.23	0.42%	0.26	0.45%	0.29	0.46%	4.92	1.99%	5.39	2.39%	6.04	2.66%	6.60	2.81%
Other Mobile Sources	3.56	6.41%	3.70	6.65%	3.91	6.75%	4.11	6.77%	12.32	22.48%	12.79	23.45%	13.56	23.35%	14.31	22.87%	27.31	11.06%	28.01	12.76%	30.93	13.64%	33.04	13.90%
SUBTOTAL FOR MOBILE SOURCES	25.39	45.68%	23.27	41.82%	23.70	40.93%	24.64	40.60%	41.35	75.46%	39.73	72.83%	41.82	72.00%	44.87	71.71%	209.89	84.97%	187.38	82.99%	185.92	81.98%	194.30	81.79%
GRAND TOTAL FOR ALL SOURCES	55.58	100.00%	55.64	100.00%	57.91	100.00%	60.69	100.00%	54.80	100.00%	54.55	100.00%	58.08	100.00%	62.57	100.00%	247.01	100.00%	225.79	100.00%	226.78	100.00%	237.65	100.00%

Source: Air Resources Board, Base Year 1981: Sulfoxide Data System and Forecasting System

The federal eight-hour ozone standard is 0.12 ppm, not to be exceeded more than three times in any three-year period.

State and federal CO standards have been set for both one-hour and eight-hour averaging times. The state 1-hour CO standard is 20 ppm, while the federal one-hour CO standard is 35 ppm. Both state and federal standards are nine ppm for the eight-hour averaging period. State and federal CO standards are phrased as values not to be exceeded more than once a year.

Outdoor CO levels are a fairly reliable indicator of potential indoor CO levels. Carbon monoxide is not chemically reactive and is poorly soluble in water. Thus, it is not absorbed on surfaces or otherwise removed from outdoor air entering a building through open doorways, open windows, or building ventilation systems.

Ozone

Ozone, the main component of photochemical smog, is primarily a summer/fall period pollution problem. Federal and state ozone standards have been periodically exceeded in parts of San Joaquin County for many years. The major contributors to regional ozone problems are motor vehicle emissions and evaporation of various organic compounds (fuels, solvents, etc.).

Ozone is not emitted directly into the air, but is formed through a complex series of chemical reactions involving other compounds (various organic compounds, nitric oxides, and nitrogen dioxide) which are directly emitted. The time period required for these reactions allows the reacting compounds to be spread over a large area, which produces a regional pollution problem. Ozone problems are the cumulative result of regional development patterns, rather than the result of a few incrementally significant emission sources.

The ozone standard has been violated at all of the San Joaquin County ozone monitoring stations that have operated since 1978. The ozone standard was violated on 21 days in 1978 at the Union Island station and on 13 days in 1978 at the Ham Lane station in Lodi. Except for these two, the ozone standard was violated a maximum of six days at any one station during any one year.

Carbon Monoxide

Carbon monoxide is primarily a winter period pollution problem. Motor vehicle emissions are the dominant source of CO in most areas. As a directly emitted pollutant, transport away from the emission source is accompanied by dispersion and reduced pollutant concentrations. Consequently, CO problems are usually rather localized, often resulting from a combination of high traffic volumes and significant traffic congestion.

The federal and state eight-hour CO standards have been exceeded up to two days per year at the Hazelton Street and Claremont monitoring stations. In addition, the eight-hour standard was violated one day in 1978 at the Ham Lane monitoring station in Lodi.

CO problems typically occur in the vicinity of major traffic arteries having significant amounts of commercial development. The presence of significant

commercial development is probably an important contributing factor for two reasons. Parking lots for such developments represent a localized source of emissions which augments the CO emissions from vehicle traffic on adjacent roadways. Additionally, vehicles leaving major parking lots are likely to be in a "cold start" operating mode, resulting in higher CO emission rates than is typical for "through" traffic on major roadways.

Meteorological conditions also affect the development of CO problems significantly. High CO levels develop primarily during the winter months when periods of light winds or calm conditions combine with the formation of ground level temperature inversions (typically in the evening through early morning period). These conditions result in reduced dispersion of vehicle emissions, allowing CO problems to develop and persist during hours when traffic volumes are declining from peak levels. Motor vehicles also exhibit increased CO emission rates at low air temperatures.

PM₁₀

Particulates are composed of smoke, dust, soot, pollens, and aerosols. The EPA revised its previous standard for particulates because it was not health-related. The new standard pertains only to particulate matter less than 10 microns in diameter. These particulates (PM₁₀) are considered to be the most dangerous to human health because they are inhalable. The larger particles do not move deep into human lungs and are cleaned out of the airways by natural processes.

Particulates in San Joaquin County come primarily from agricultural dust and tillage. The new standard limits concentration of PM₁₀ to 150 micrograms per cubic meter of air, not to be exceeded more than one day per year, and 50 micrograms per day averaged over the entire year. State and local air quality agencies are working to establish measures to control PM₁₀ emissions and to enact measures to reach attainment.

FINDINGS

- o Water quality in the San Joaquin River has been degraded by urban run-off and agricultural irrigation water, reducing the suitability of this water for agricultural, fisheries, and domestic use. Poor water quality may limit the ability of the City to discharge future sewage effluent to the river.
- o Overdrafting of groundwater in the Planning Area has resulted in saltwater intrusion in the vicinity of some public wells.
- o Conversion of agricultural lands and prime soils to urban use is the most important issue for soils and agricultural resources planning. Substantial portions of the Planning Area are devoted to agriculture.
- o Extensive riparian woodlands once covered the floodplain of the San Joaquin River and its tributary sloughs. Much of this original woodland was cleared for levee construction and maintenance, although remnants still exist in the southwest part of the study area.
- o Originally, the Delta was one of the most significant waterfowl areas in the state. Development of this area created fertile farmland but, while doing so, it also destroyed the extensive marshland habitat used by these birds. Flooded agricultural fields duplicate the functional values of the marshes somewhat, and the area continues to be an important waterfowl area (Madrone Associates, 1980). Urban expansion would displace these agricultural lands.
- o The existing sand and gravel operation should continue to be buffered for incompatible land uses to ensure continued extraction.

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GLOSSARY

Air Pollutant Emission - Discharges into the atmosphere, usually specified in terms of weight per unit of time for a given pollutant from a given source

Air Pollution Control District (APCD) - A single- or multi-county agency with legislative authority to adopt and enforce all rules and regulations necessary to control nonvehicular sources of air pollutants in its area

Air Quality Standard - A health-based standard for air pollution established by the federal government and the state

Ambient Air Quality - The quality of the air at a particular time and place
cfs - cubic feet per second

Climatology - The study of long-term, average weather, including winds, temperature, cloud cover, rainfall, and humidity

CO - Carbon monoxide

Concentration - A measure of the average density of pollutants, usually specified in terms of pollutant mass per unit volume of air (typically in micrograms per cubic meter) or in terms of relative volume of pollutant per unit volume of air (typically in parts per million)

Emission Inventory - Inventory of types, sources, and amounts of air emissions with a geographical region

gpm - gallons per minute

Habitat - The natural environment of a plant or animal

HC - hydrocarbons

Land Capability Classification (U.S. Soil Conservation Service) - A grouping of soils into classes (I-VIII), subclasses, and units according to their suitability for agricultural use, based on soil characteristics and climatic conditions

Land Inventory and Monitoring (U.S. Soil Conservation Service) - A rating system for designating prime farmland that uses nine criteria. The LIM system also defines "unique farmland," "additional farmland of statewide importance," and "additional farmland of local importance."

Minerals - "Any naturally occurring chemical element or compound, or group of elements and compounds, formed from inorganic processes and organic substances, including, but not limited to, coal, peat, and bituminous rock, but excluding geothermal resources, natural gas, and petroleum (Title 14, California Administrative Code Section 3502)

NO_x - Nitrogen oxides

O_x - Oxidant (ozone)

PM₁₀ - Particulate matter less than 10 microns in diameter

Reclamation - "the combined process of land treatment that minimizes water degradation, air pollution, damage to aquatic or wildlife habitat, flooding, erosion, and other adverse effects from surface mining operations including adverse surface effects incidental to underground mines, so that mined lands are reclaimed to a usable condition which is readily adaptable for alternate land uses and create no danger to public health or safety. The process may extend to affected lands surrounding mined lands, and may require backfilling, grading, resoiling, revegetation, soil compaction, stabilization, and other measure" (Public Resources Code Section 2733)

Riparian Habitat - The land and plants bordering a watercourse or lake

SO₂ - Sulfur dioxide

TSP - Total suspended particulates

TCE - trichloroethylene

Wetlands - Areas that are permanently wet or periodically covered with shallow water, such as saltwater and freshwater marshes, open or closed brackish marshes, swamps, mudflats, and fens

CHAPTER IX. HEALTH & SAFETY

CHAPTER IX

HEALTH AND SAFETY

INTRODUCTION

A range of environmental hazards must be taken into account in urban planning. Some of the hazards are natural, such as seismic shaking, some are purely man-made, such as noise, and others are natural hazards that are exacerbated by man, such as development in a floodplain. Many of the hazards are simply to be avoided in the development process by locational decisions, while other hazards can be tolerated or minimized by building mitigation measures into the planning and land use regulation process and building standards.

This chapter inventories and assesses the major hazards confronting Manteca, including geologic and seismic hazards, flooding, wildland and urban fires, and noise.

GEOLOGIC AND SEISMIC HAZARDS

This section on geologic and seismic hazards is based on a review of existing geologic and environmental Planning Area. The Seismic Safety Element of the San Joaquin General Plan and the Urban Geology Master Plan for California prepared by the California Division of Mines and Geology were used extensively. Copies of the original maps prepared for the County's Seismic Safety Element (which were done to a larger scale than those presented in this document) were used to delineate hazards in the Planning Area.

Seismic Hazards

A seismic hazard is a risk or danger to man or man's environment due to the existence of active or potentially active earthquake faults.

Measures of Seismic Activity

Earthquakes are measured by their physical effects and by the amount of energy being released. The Modified Mercalli Scale is used to measure the physical effects of earthquakes. This scale ranges from I to XII, with an earthquake intensity of XII resulting in nearly total damage to man-made structures and displacement of large masses of rock (see Chart IX-1). The Richter Scale is used to assign a number to the calculated energy release of an earthquake. The Richter Scale is logarithmic, and an increase in 1 number of magnitude is the same as an increase of 32 times in energy release.

Earthquake History

Within the last 150 years the San Joaquin County area has experienced several earthquakes of intensity V or greater on the Modified Mercalli Scale. Table IX-1 lists these quakes.

TABLE IX-1
EARTHQUAKES AFFECTING SAN JOAQUIN COUNTY

Date	MM Intensity in San Joaquin County	MM Intensity Near Epicenter	Epicenter	Richter Magnitude at Epicenter
1836	V-VI	IX-X	Hayward	7.0
1838	VI	X	San Francisco Peninsula	7.0
1857	VI	X-XI	Mountains between Santa Barbara and Bakersfield	8.0
1868	V-VI	IX-X	Hayward	7.0
1872	VI	X	Owens Valley	8.0
1881	V-VI(?)	VII	Linden	5.0
1892	IV-V	VIII	Vacaville	7.0
1906	VI-VII	XI	San Francisco	8.3
1940	?	?	Southeast of Linden	4.0
1946	?	?	Patterson Pass	4.5
1952	V	VIII	Bakersfield	7.7
1966	IV-V	VII	North of Tahoe	6.5

Source: San Joaquin County Planning Department 1978.

Faults

Faults are indications of past seismic activity. It is assumed that those that have been active recently are the most likely to be active in the future, although even inactive faults may not be "dead." The recency of activity is measured in geologic terms, or geologic time. Geologically recent is within the past two million years (the Quarternary period). All faults believed to have been active during Quarternary time are considered "potentially active" by the State Division of Mines and Geology. Those that have exhibited activity within the last 11,000 years are called "active." If a fault is considered to be "historically active," it has exhibited activity within the last 200 years. Faults for which there is no evidence of activity during the last two million years are considered to be inactive (San Joaquin County Planning Department, 1978).

Figure IX-1 illustrates faults located in the vicinity of the Planning Area. Seismic activity on these faults has the greatest potential for causing damage in the Planning Area. Some of the faults are active and some inactive, as discussed below. Seismic activity in other parts of the state can also affect the Planning Area, but its potential impact is not as great.

CHART IX-1

THE MERCALLI INTENSITY SCALE (As modified by Charles F. Richter in 1956 and rearranged)

<i>If most of these effects are observed</i>	<i>then the intensity is:</i>	<i>If most of these effects are observed</i>	<i>then the intensity is:</i>
Earthquake shaking not felt. But people may observe marginal effects of large distance earthquakes without identifying these effects as earthquake-caused. Among them: trees, structures, liquids, bodies of water sway slowly, or doors swing slowly.	I	<i>Effect on people:</i> Difficult to stand. Shaking noticed by auto drivers.	VIII
<i>Effect on people:</i> Shaking felt by those at rest, especially if they are indoors, and by those on upper floors.	II	<i>Other effects:</i> Waves on ponds; water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Furniture broken. Hanging objects quiver.	
<i>Effect on people:</i> Felt by most people indoors. Some can estimate duration of shaking. But many may not recognize shaking of building as caused by an earthquake; the shaking is like that caused by the passing of light trucks.	III	<i>Structural effects:</i> Masonry D* heavily damaged; Masonry C* damaged, partially collapses in some cases; some damage to Masonry B*; none to Masonry A*. Stucco and some masonry walls fall. Chimneys, factory stacks, monuments, towers, elevated tanks twist or fall. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Decayed piling broken off.	
<i>Other effects:</i> Hanging objects swing.	IV	<i>Effect on people:</i> General fright. People thrown to ground.	IX
<i>Structural effects:</i> Windows or doors rattle. Wooden walls and frames creak.		<i>Other effects:</i> Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes. Steering of autos affected. Branches broken from trees.	
<i>Effect on people:</i> Felt by everyone indoors. Many estimate duration of shaking. But they still may not recognize it as caused by an earthquake. The shaking is like that caused by the passing of heavy trucks, though sometimes, instead, people may feel the sensation of a jolt, as if a heavy ball had struck the walls.	V	<i>Structural effects:</i> Masonry D* destroyed; Masonry C* heavily damaged, sometimes with complete collapse; Masonry B* is seriously damaged. General damage to foundations. Frame structures, if not bolted, shifted off foundations. Frames racked. Reservoirs seriously damaged. Underground pipes broken.	
<i>Other effects:</i> Hanging objects swing. Standing autos rock. Crockery clashes, dishes rattle or glasses clink.	VI	<i>Effect on people:</i> General Panic.	X
<i>Structural effects:</i> Doors close, open or swing. Windows rattle.		<i>Other effects:</i> Conspicuous cracks in ground. In areas of soft ground, sand is ejected through holes and piles up into a small crater, and, in muddy areas, water fountains are formed.	
<i>Effect on people:</i> Felt by everyone indoors and by most people outdoors. Many now estimate not only the duration of shaking but also its direction and have no doubt as to its cause. Sleepers awakened.		<i>Structural effects:</i> Most masonry and frame structures destroyed along with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes and embankments. Railroads bent slightly.	
<i>Other effects:</i> Hanging objects swing. Shutters or pictures move. Pendulum clocks stop, start or change rate. Standing autos rock. Crockery clashes, dishes rattle or glasses clink. Liquids disturbed, some spilled. Small unstable objects displaced or upset.	VII	<i>Effect on people:</i> General panic.	XI
<i>Structural effects:</i> Weak plaster and Masonry D* crack. Windows break. Doors close, open or swing.		<i>Other effects:</i> Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land.	
<i>Effect on people:</i> Felt by everyone. Many are frightened and run outdoors. People walk unsteadily.		<i>Structural effects:</i> General destruction of buildings. Underground pipelines completely out of service. Railroads bent greatly.	
<i>Other effects:</i> Small church or school bells ring. Pictures thrown off walls, knickknacks and books off shelves. Dishes or glasses broken. Furniture moved or overturned. Trees, bushes shaken visibly, or heard to rustle.	VIII	<i>Effect on people:</i> General panic.	XII
<i>Structural effects:</i> Masonry D* damaged; some cracks in Masonry C*. Weak chimneys break at roof line. Plaster, loose bricks, stones, tiles, cornices, unbraced parapets and architectural ornaments fall. Concrete irrigation ditches damaged.		<i>Other effects:</i> Same as for Intensity X.	
		<i>Structural effects:</i> Damage nearly total, the ultimate catastrophe.	
		<i>Other effects:</i> Large rock masses displaced. Lines of sight and level distorted. Objects thrown into air.	
		Masonry A: Good workmanship and mortar, reinforced, designed to resist lateral forces.	
		Masonry B: Good workmanship and mortar, reinforced.	
		Masonry C: Good workmanship and mortar, unreinforced.	
		Masonry D: Poor workmanship and mortar and weak materials, like adobe.	

Source: California Division of Mines & Geology, 1973

San Andreas Fault Zone. The San Andreas Fault is one of the longest, most thoroughly studied, and most active faults in the world. Some sections in the Central Coast Ranges south of San Joaquin County are creeping at rates as great as 3.5 centimeters per year. Other segments, north and south of the creep areas, exhibit essentially no movement. The fault in those areas appears to be temporarily "locked." It is generally agreed that a "locked" condition allows stresses to accumulate more rapidly, thus shortening the time between major earthquakes.

It is possible to demonstrate an accumulated offset along the San Andreas Fault measured in hundreds of miles, occurring over a period of tens of millions of years. Since there is presently movement along some of its length, and numerous smaller earthquakes are recorded as emanating from the fault zone, it is practically a certainty that moderate-to-great earthquakes will occur on the San Andreas Fault in the foreseeable future. The maximum probable intensity that could occur in San Joaquin County would be VIII or IX--large enough to cause fright and serious damage.

Hayward Fault. The Hayward Fault is located east of San Francisco Bay and extends southeast to where it probably merges with the Calaveras Fault north of Hollister. A review of the recent history of this fault shows two major earthquakes (1836 and 1868), each with an estimated Richter Scale Magnitude of 6.5 to 7.5. Current measurements indicate creeping at rates up to 1 centimeter per year in places. Numerous small earthquakes (Richter Scale Magnitude of 3 to 5) have occurred along this fault in recent years, indicating continued activity.

Calaveras Fault. The Calaveras Fault borders the eastern flank of the Berkeley-Hayward Hills, and extends to the southeast where it joins the San Andreas Fault south of Hollister. Epicenters of recent earthquakes with Richter Magnitude up to about 4.5 have been located along, or near, this fault. In 1868, an earthquake of unknown magnitude caused ground breakage near Danville. Several centimeters of creep have been measured in Hollister, where a Calaveras Fault trace cuts through a residential area. The pattern of offset curbs and sidewalks is similar to that of creep and faulting along other branches of the San Andreas system.

Green Valley - Concord Faults. This fault zone, extending from Walnut Creek to west of Fairfield, has experienced displacement throughout most of its length within recent geologic time. An earthquake of 5.4 magnitude occurred in 1955 along part of the fault near Concord. There is currently evidence of some movement along the fault in the City of Concord. The greatest probable earthquake generated by this fault is not expected to exceed a magnitude of 7.0 on the Richter Scale.

Midland Fault. The Midland Fault, buried under recent alluvium, extends north from Bethel Island in the San Joaquin Delta, to east of Lake Berryessa. Its activity is not as well documented as the previously discussed faults. There is evidence, however, that fault displacement has occurred during recent geologic time. Also, the State Division of Mines and Geology believes that the Midland Fault is a possible source of a major earthquake centered near Vacaville in 1892. The maximum probable earthquake that would be generated by this fault is a magnitude of 7.0 on the Richter Scale.

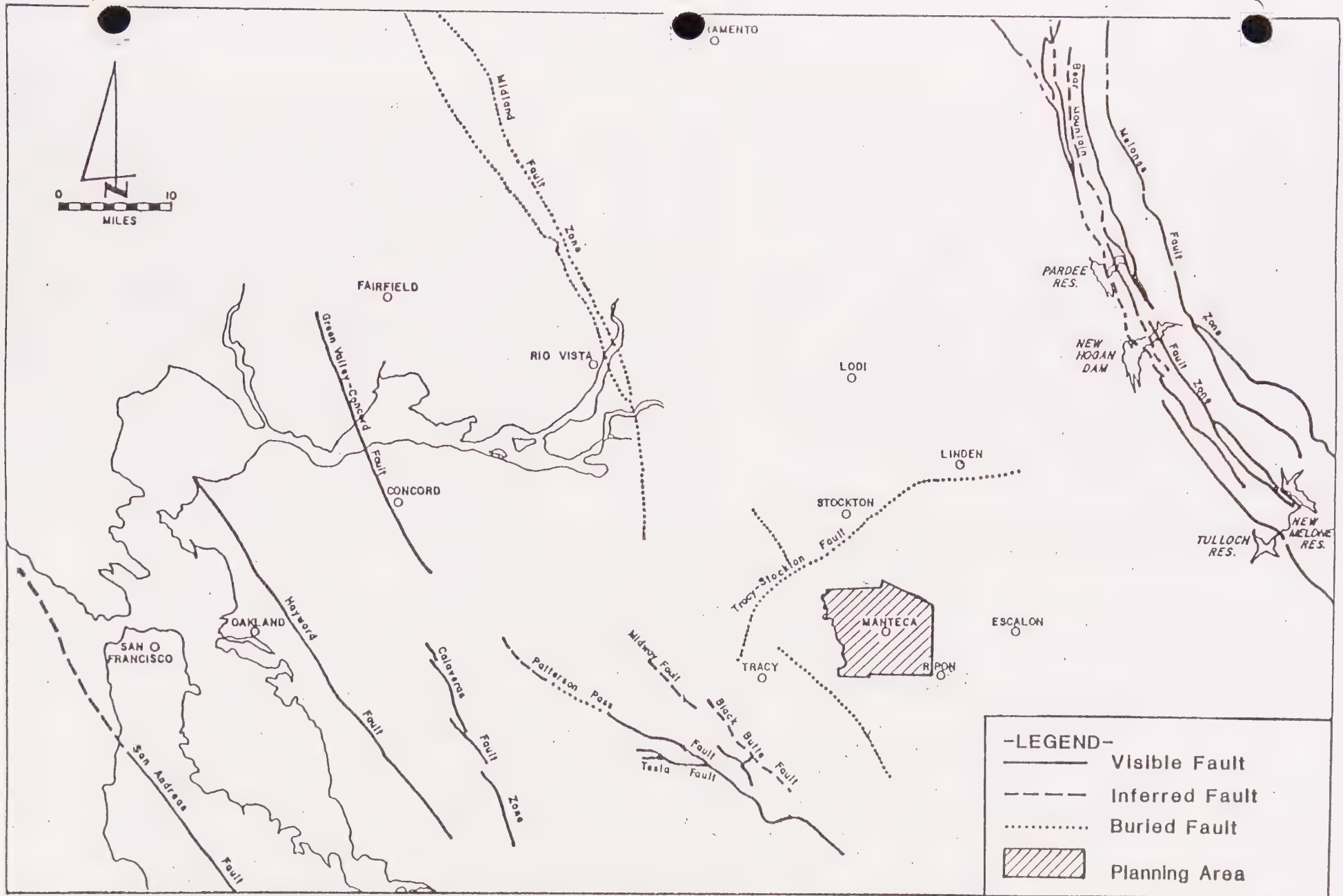


FIGURE IX-1. FAULTS IN THE VICINITY OF THE PLANNING AREA

MODIFIED FROM: CALIFORNIA DIVISION OF MINES & GEOLOGY FAULT MAP OF CALIFORNIA, 1975

San Joaquin Fault Zone. A new fault system has recently been identified by the U. S. Geologic Survey. The San Joaquin Fault Zone extends from Tracy to Los Banos, paralleling Interstate 5. Geologic studies show that the zone has sustained activity during the Quarternary period. This could be a very important fault system for San Joaquin County.

Tracy-Stockton Fault. The Tracy-Stockton Fault crosses the County from the southwest near Tracy to the northeast near Linden. It passes directly beneath Stockton. Its position is known only from oil well log data, since no surface trace of this fault has been mapped. Subsurface data indicate that no appreciable movement has occurred on the Tracy-Stockton Fault for five million years or more. Ordinarily, such evidence would lead to the conclusion that the fault is inactive and therefore does not pose an earthquake threat. There is, however, evidence of activity near the easternmost subsurface positions of the fault. On April 10, 1881, an earthquake occurred near Linden having an estimated Modified Mercalli Intensity of VII. Although direct correlations between intensity and magnitude are not precise, this earthquake was approximately Richter Magnitude 5.0. Two other smaller earthquakes (Richter Magnitude 4.0) occurred on September 19 and 20, 1940, approximately five miles south of Linden. The latter epicenter was instrumentally located, but only in a "rough" manner. It is therefore not certain whether or not these epicenters lie along a northeast extension of the Tracy-Stockton Fault. There is, however, the possibility of an active fault capable of at least a 5.0 magnitude earthquake located in or near the central part of San Joaquin County.

Patterson Pass Fault. The Patterson Pass Fault runs northwest from the Alameda-San Joaquin County boundary toward Livermore. Its location is imprecise and the nature of movement, if any, is uncertain. The fault is cited here because of one well-located epicenter generating a 4.5 magnitude earthquake in 1946. It seems unlikely that this small fault presents a significant seismic threat to San Joaquin County in comparison with other fault systems.

Small Buried Fault. Two small buried faults have been located by aerial photo analysis in the western portion of the County. The northern one is located on Roberts Island and the more southern fault extends from near Banta to the County line. The latter appears to be buried beneath young sediments. Associated land forms suggest geologically recent activity, although this fault has not been historically active. Additional field investigation of this fault is warranted.

Melones-Bear Mountain Fault Zones. The Melones and Bear Mountain Fault Zones extend in a wide band along the western edge of the Sierra Nevada Mountains in the higher elevation foothills. Beginning near the southwest corner of Yosemite National Park, the fault zones run through Mother Lode communities ending in the foothills east of Red Bluff.

The Melones and Bear Mountain Fault Zones have exhibited little seismic activity and have been considered to be inactive, since no evidence has been found of Quarternary fault movement. The U. S. Geological Survey has been monitoring activity along the two fault zones in the vicinity of New Melones Dam since 1972 and have found a lack of even micro-seismic activity.

Because of the location of Tulloch, New Melones, and Pine Flat Reservoirs within the Melones and Bear Mountain Fault Zones, the question of the activity of these faults is extremely important for the Planning Area. Failure of a dam at any one of the reservoirs could cause flooding in the Planning Area.

On August 1, 1975, a 5.7 magnitude earthquake took place near Oroville. The Oroville earthquake is important because it took place in an area where a quake of such magnitude was not expected and because it occurred in the Sierra Nevada foothills.

James E. Slosson, former State Geologist, concluded that "the Oroville earthquake should be interpreted as related to the tectonics or crustal strain pattern for this region... The Oroville earthquake suggests that this event is indicative of future earthquakes within the fault zones of the western Sierra Nevada foothills. If this hypothesis is reasonable, earthquakes of at least magnitude 6 should be anticipated..." The report goes on to state: "The fault zones of the western Sierra Nevada foothills extending from Bakersfield to Chico should be reanalyzed with consideration given to the 1940 and 1975 earthquakes in Butte County, the alignments of faults associated with topographic features of terrain, and current "state-of-the-art" in both seismology and geology." Since upstream dam failure could lead to massive flooding in San Joaquin County, it is extremely important to the County that the Melones and Bear Mountain Fault Zones be reanalyzed.

Tesla and Black Butte Faults. Neither of these faults, located in the southwest corner of San Joaquin County, have any recorded evidence of activity.

Other Faults. Earthquakes along faults in the Owens Valley, Kern County (White Wolf Fault), near Oroville, and in Nevada have been felt in San Joaquin County. However, because of the distance of these faults, they do not pose a significant seismic hazard to the planning area.

Primary Effects of Seismic Activity

Strong groundshaking poses a greater seismic threat than the possibility of a local ground rupture. The most likely sources of strong groundshaking are the San Andreas, Hayward, Calaveras, Midland, Green Valley-Concord, and Tracy-Stockton Faults. The intensity of groundshaking from earthquakes on these and other faults is dependent on the earthquake's magnitude, distance, and soil and rock properties. With these factors in mind, it is not unreasonable to expect groundshaking equivalent to an intensity of VIII or IX on the Modified Mercalli Scale. Insufficient data exists on the dynamic properties of subsurface soils in San Joaquin County to precisely define the characteristics of the "maximum probable" earthquake at ground surface. However, some general observations can be made:

- o The depth of soil overlying "rock-like" material varies within the County from depths of less than 100 feet up to 1,000-2,000 feet.
- o In general, deep deposits of soft soils tend to produce ground motions that have a greater effect on tall structures and lesser effects on short, rigid structures.

- o Shallow deposits of stiff soil tend to produce ground motions having maximum effects on low, rigid structures and lesser effects on tall buildings.
- o Therefore, the ground motion expected in the Planning Area would tend to have its greatest effect on taller structures (over 3-4 stories high). Ground motions which would have greater effects on low structures would be more likely in the foothills of the southwest and eastern areas of the County.

The type of construction used in buildings and other structures also influences the degree of damage and destruction. Wood-framed buildings, if properly designed and constructed, can withstand strong shaking. Buildings of masonry, brick, or concrete blocks similarly designed and constructed are not as resistant, but are satisfactory if the mortar is good and they are reinforced with steel. Weakest of all structures are adobe and mud-walled buildings. Masonry and poorly built concrete structures can also be heavily damaged.

Fire is often the major form of damage resulting from groundshaking effects. Ninety percent of the destruction in the San Francisco earthquake of 1906 was caused by fire. This devastation was caused in large part from the great number of buildings constructed of combustible materials, damage to much of the City's fire fighting facilities, and very importantly, the rupture of water mains. Most of the earthquake-induced fires start because of rupturing of power lines, damage to wood, gas, or electrical stoves, and damage to other gas or electrically powered equipment in use. This points out the need for greater emphasis on noncombustible material and on special construction techniques so that water mains will remain unbroken during a large earthquake. Similarly, critical facilities such as hospitals and fire stations must be sited, designed, and constructed to withstand severe earthquake groundshaking.

There are no identified faults within the Planning Area, so ground surface faulting or displacement is considered unlikely.

Secondary Effects of Seismic Activity

In addition to local ground rupture and general groundshaking, an earthquake can trigger many other actions. These secondary effects can cause as much, or more, damage as the earthquake itself. Secondary effects may include: liquefaction, tsunamis, seiches, landslides, subsidence, floods, and a possible cumulative effect of crippling emergency responses. Since landslides and subsidence are hazards even without seismic activity, these are discussed later in this chapter under "Other Geologic Hazards."

Tsunamis. Tsunamis, or seismic sea waves, are great oceanic waves that are generated by earthquakes, submarine volcanic eruptions, or large submarine landslides. Tsunamis pose a negligible hazard to the Planning Area. Seismic sea waves originating in the Pacific Ocean would be dissipated in San Francisco Bay.

Seiches. Seiches are periodic oscillations of water level in basins. They are primarily a result of seismic sea waves, wind and weather changes,

seismically induced ground waves, landslides, and tectonic tilting. The period of seiche ranges from a few minutes to a few hours, depending upon the size and shape of the basin of water. The amplitude of a typical seiche ranges from a few inches to several feet.

Seiches occur not only in confined basins, but also in harbors, bays, channels, rivers, or other bodies of water. A related effect is the oscillations that can occur in water tanks during earthquakes. Bulges in steel tanks due to earthquake-induced water forces were noted in both the San Fernando earthquake of 1971 and the Nicaragua earthquake of 1972.

A related phenomenon, known as a surge, similar to a seiche but having a larger amplitude and generally greater violence, can also occur. A surge occurred during the 1959 Montana earthquake when the basin of Hebgen Lake subsided differentially and the lake bed was abruptly warped. Surges of water as much as 10 feet above normal water level occurred. Oscillation continued for at least 12 hours after the earthquake. The spillway of Hebgen Dam was badly damaged, both by the earthquake and the subsequent surges. Surges or seiches can also occur due to seismically or nonseismically induced landslides.

There are no historical records of a seiche occurring in or adjacent to San Joaquin County. That does not, however, rule out the possibility of one occurring in the future. Seismically induced waves occurring in Delta channels could damage levees. The consequences of the occurrence of seiches or surges should be considered in the design of dams, levees, water tanks, and similar structures.

Liquefaction. Liquefaction is a soil phenomenon in which a water-saturated cohesionless soil temporarily loses its strength and liquefies when subjected to dynamic forces such as intense and prolonged groundshaking. If the liquefying layer is a few feet below the surface, it may provide a sliding surface for the ground above it, causing landsliding.

A great deal of damage in recent earthquakes (Chile, 1959; Alaska, 1964; Nigata, Japan, 1964; San Fernando, 1971; and Mexico City, 1985) has been caused by soil liquefaction. When liquefaction occurs, building foundations may sink or tilt into the underlying soil, differential ground subsidence may occur, or landsliding may take place. In the San Fernando earthquake, a landslide causing extensive damage was attributed to soil liquefaction. The movement occurred on an average ground slope of two degrees.

The areas that are believed to have the greatest potential for liquefaction are those in which the water table is less than 50 feet below ground level and the soils are predominantly clean, relatively uniform sands of loose to medium density. Clay-type soils are generally not subject to liquefaction. The closer the groundwater is to the surface, the greater is the potential for liquefaction.

The Planning Area is susceptible to liquefaction because of the combination of sandy soils and a high groundwater table. Figure IX-2 shows the groundwater levels in the Planning Area in the fall of 1984 and identifies the area in which soil liquefaction during seismic disturbance is most likely to occur.



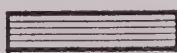
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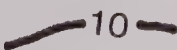
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Scale in Miles

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FIGURE IX-2. AREAS OF POTENTIAL LIQUEFACTION



AREAS IN WHICH SOIL LIQUEFACTION DURING A
SEISMIC DISTURBANCE IS MOST LIKELY TO OCCUR



10 DEPTH TO GROUNDWATER IN FEET

Source: San Joaquin County Planning Department, 1978

Whether or not soil will actually liquefy depends on the amplitude and frequency of the wave motion of the groundshaking and its duration. The looser the soil, the shorter the duration and the less intense the shaking needed to cause liquefaction. More dense soils will withstand longer durations of shaking and more intense shaking before liquefaction takes place. The type of earthquake motion expected for San Joaquin County from large earthquakes is expected to be a long rolling-type motion, which would be less likely to cause liquefaction. However, if an earthquake were to occur along the Tracy-Stockton Fault, the motion near the fault would tend to be sharp, high frequency vibrations, a type more likely to cause liquefaction.

Although there are several areas of San Joaquin County that have a potential for soil liquefaction during strong groundshaking, the probability of soil liquefaction actually taking place in the County is considered to be relatively small because of the distance from the San Andreas, Hayward, and Calaveras Fault Zones, the type of groundshaking expected from those faults, and the relative inactivity of the Tracy-Stockton Fault. However, the possibility of soil liquefaction still exists and should be considered when planning and designing levees and structures in areas of potential liquefaction.

Other Geologic Hazards

Slope Instability

The downslope movement of earth materials, often referred to as mass movements (landslides, mudflows, snow and ice avalanches, unstable cut and fill slopes, trench wall stability problems, rockfalls, and creep), is a normal geologic process by which slopes are flattened and valleys are widened. The rate of downslope movement ranges from very rapid rockfalls to very slow soil and bedrock creep. Almost all slopes are involved in some form of mass movement. Although most of these movements are considered to be minor or insignificant, there are areas where slope failures pose a major geologic problem. Early recognition of areas susceptible to large scale movement can significantly reduce the threat of damage and injury in the land use planning and design process.

Slope instability is not a major constraint to land use in the Planning Area because of the relatively flat topography.

Foundation Instability

Foundation instability can be caused by collapsible soils, expansive soils, Karst terrain, lava tubes or caves, and abandoned mines, tunnels, and water wells. The main sources of foundation instability in the Planning Area include expansive soils and abandoned water wells.

Expansive soils are earth materials which increase in volume when they absorb water and decrease in volume when they dry out. Expansion is most often caused by clay minerals absorbing water from the air or ground into their crystal lattices. When buildings are placed on expansive soils, foundations may rise each wet season and fall each dry season. Because movements may vary under different parts of structures, building foundations may crack and doors and windows may warp. The southwest corner of the Planning Area is the major area of shrink-swell soils. The generalized location of these soils is shown on Figure IX-3.

The adverse effects of expansive soils can be avoided by proper drainage and foundation design. Soils testing, which is required for all graded building sites by Chapter 70 of the Uniform Building Code, will detect the presence of expansive soils at specific sites. Once expansive soils have been detected, corrective measures can be designed into foundations for little additional cost. Depending on the specific soils situation, the following examples or corrective measures can be used (California Division of Mines and Geology, 1973):

1. Compaction and water content of the building site can be designed to allow for some open spaces or voids. The voids will permit some expansion to take place within the soil mass and will prevent expansion of the entire graded section. Compaction to 85 percent of maximum optimum density with water contents several percent above optimum will commonly accomplish this.
2. The moisture content can be stabilized by soaking the building site and maintaining this water content during and after construction.
3. Concrete slab floors can be strengthened by increasing their thickness and including reinforcing steel. This will allow the foundations to rise and fall as a unit.
4. Drains and water barriers can be installed around and under foundations to prevent water from entering the foundation area.
5. The building foundations can be extended downward by piers so that building structures rest on the underlying nonexpansive materials. The piers can be tied together by grade beams that unite the foundation into a more rigid unit.
6. Gravel blankets have been used under concrete slabs.

If construction occurs over abandoned water wells, measures should be taken to ensure the well is filled and the fill is compacted prior to new construction.

Erosion and Sedimentation Problems

Erosion is the process of detachment and transportation of soil particles by wind and water. Erosion can pose a hazard to continued agricultural production and sediments can harm water quality and clog drainage structures.

Wind erosion hazard in the Planning Area ranges from moderate to high, as shown in Figure IX-4. The only portion of the Planning area with a relative water erosion potential rating above low is the area just east of the San Joaquin River between West Ripon Road and the spot where Interstate 5 crosses the San Joaquin River. The water erosion potential in this area is moderate (see Figure IX-5).



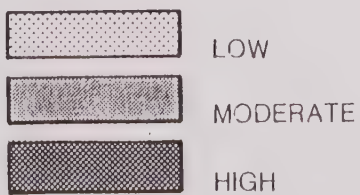
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CALIFORNIA
General Plan



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Scale in Miles

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FIGURE IX-3. SOIL LIMITATION RATING FOR
SHRINK-SWELL BEHAVIOR



Source: San Joaquin County Planning Department, 1978

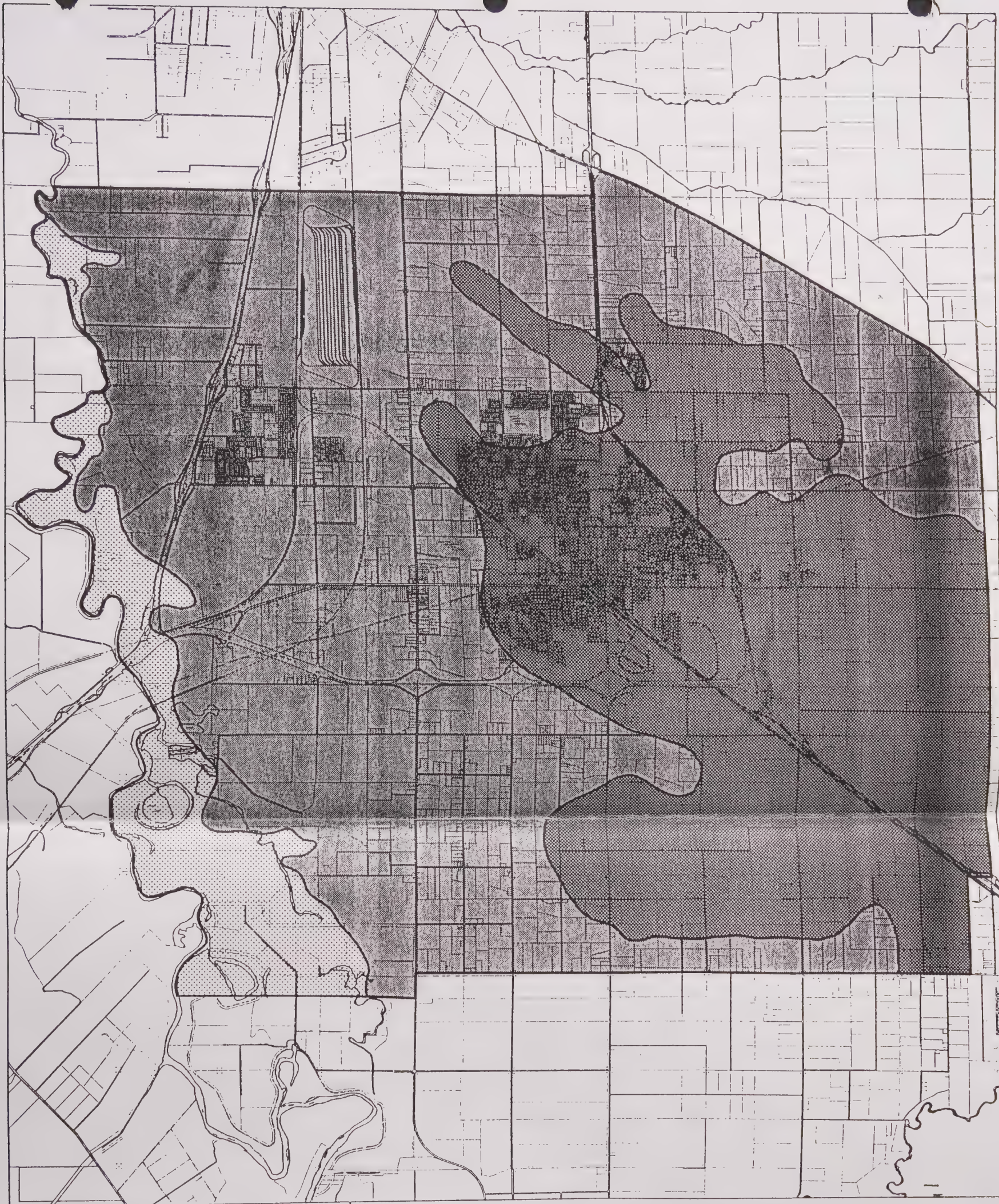
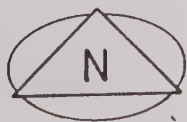


FIGURE IX-4. WIND EROSION POTENTIAL

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Scale in Miles

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Source: San Joaquin County Planning Department, 1978

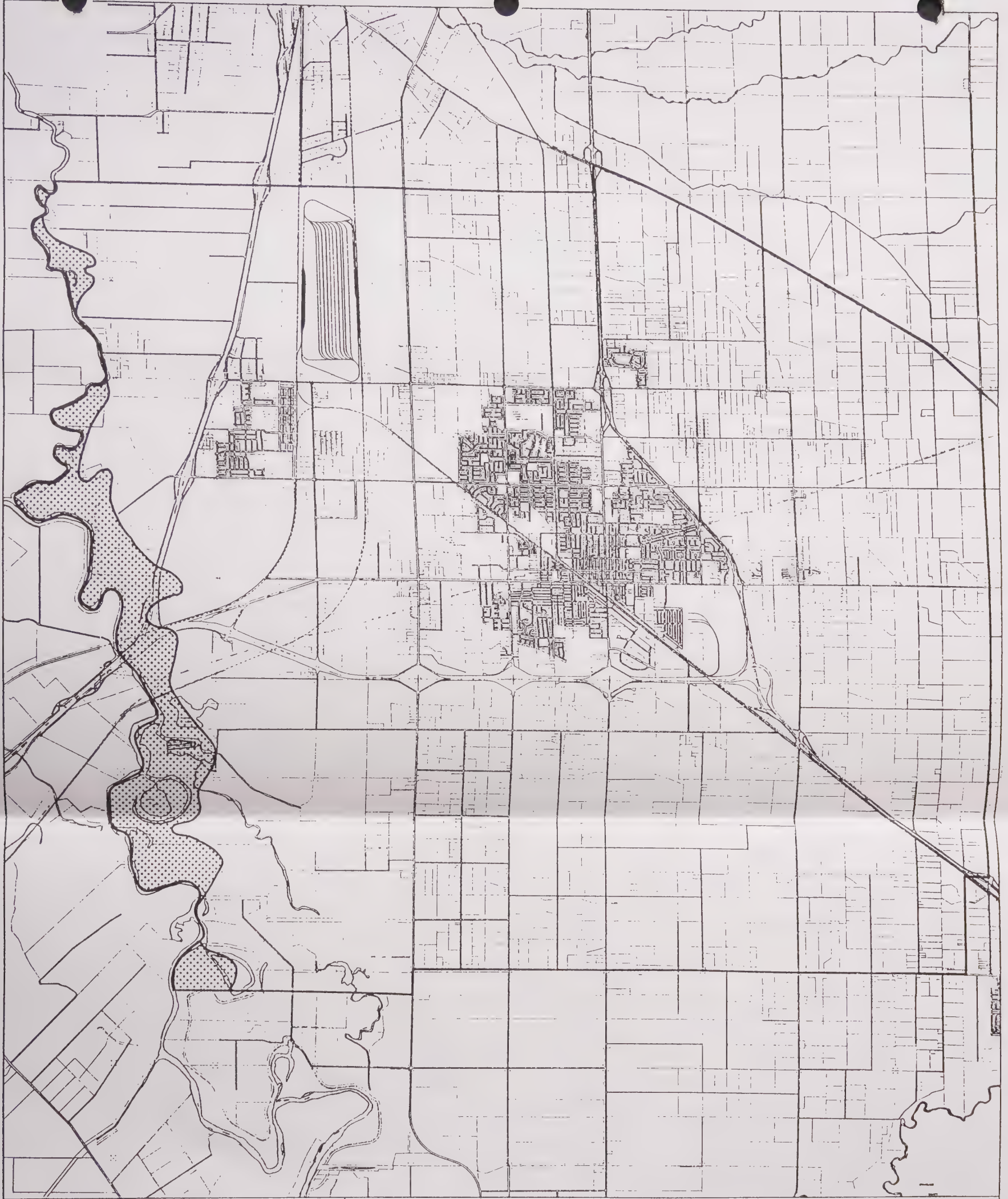


FIGURE IX-5. WATER EROSION POTENTIAL

MANTECA
CALIFORNIA
General Plan



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 MODERATE

Source: San Joaquin County Planning Department, 1978

As part of the 1974 Storm Drainage Master Plan study, a field survey was undertaken that revealed extensive quantities of sand and silt in the City's drainage lines. The accumulation of this material substantially reduces the carrying capacities of trunk lines thereby causing local flooding. Requiring strict adherence to a grading ordinance would help to minimize erosion, and thus sedimentation, from developing in urban areas.

Volcanic Hazards

The products of volcanic eruptions cause damage by their heat or by covering the landscape with their deposits. A volcanic eruption can take human lives, destroy buildings, destroy or pollute water supply systems, and convert productive farmland to sterile, rocky landscapes. The most probable centers for future volcanic eruptions are distant from the Planning Area along the eastern margin of the Sierra Nevada.

Land Subsidence

Subsidence of the land surface can result from extraction of groundwater, gas, oil, and geothermal energy. Hydrocompaction, peat oxidation, and fault rupture are also potential causes of subsidence. Groundwater withdrawal subsidence is the most extensive type in California. This type of subsidence has been observed only in valley areas underlain by alluvium.

Subsidence can cause a change in gradients affecting the carrying capacities of canals, drains, and sewers. Compaction of sediments at depth has caused extensive damage to water wells in areas where subsidence has been substantial. The magnitude of subsidence depends primarily on the following five factors (California Division of Mines and Geology, 1973):

1. The magnitude of water level decline.
2. The thickness of the alluvium tapped by wells.
3. The individual and combined thicknesses and compressibilities of the silt and clay layers within vertical sections tapped by wells.
4. The lengths of time during which water level declines are maintained.
5. The number of occurrences of heavy withdrawals of water in any single area.

The San Joaquin Valley is divided into 15 groundwater basins for management purposes. The boundaries of each basin are based largely on political considerations. The Planning Area is within the eastern San Joaquin Basin, which includes the lands bounded by the County line on the north, the San Joaquin River on the west, the County line and the Stanislaus River on the south, and the edge of the alluvium on the east. This basin has been identified by the Department of Water Resources as experiencing overdraft, (California Department of Water Resources, 1980). Chapter VIII, Natural Resources, includes a discussion of the existing overdraft problem.

Natural gas withdrawal also occurs within the Planning Area, but subsidence due to gas withdrawal alone does not reach the magnitude of water or oil withdrawal. If subsidence does occur over a gas field, it is often difficult to separate from other types of subsidence that may be going on concurrently. The other types of subsidence that result from peat oxidation, hydro-compaction, and extraction of geothermal resources are not likely to occur in the planning area.

Waste Disposal Problems

The Lathrop area which has approximately 1,452 water service connections currently uses individual septic tank/filter field systems. The potential water quality problems associated with a community of this size lacking a wastewater treatment system may be solved when the expansion of the Manteca wastewater treatment plant is complete. At that time, Lathrop can hook up to Manteca's system.

Water and Soil Pollution Problems

Existing water quality problems around Sharpe Army Depot are discussed in Chapter VIII, Natural Resources.

There is a potential water quality problem from improperly abandoned septic systems in the Planning Area. To avoid this problem, all septic systems should be destroyed in compliance with San Joaquin County Ordinance No. 1862 (Hall pers. comm.).

FLOOD HAZARDS

Flood hazards in the Planning Area are the result of the 100-year flood, localized drainage problems, and dam failure.

The primary effects of flooding are caused by the initial force of flood waters which can shatter structures and uplift vehicles. Floodwaters can carry large objects downstream which have the force to remove stationary structures. Saturation of materials and earth can cause instability, collapse, and damage. Objects can be buried through sediment deposition. Floods can cause drowning or isolation of persons and animals. Floodwaters can break utility lines, interrupting services and potentially affecting health and safety, particularly in the case of broken sewer or gas lines.

The secondary effects of flooding are due to standing water. Standing water can result in loss of crops, septic tank failure, and water well contamination. Standing water can also damage roads, foundations, and electrical circuits.

The 100-Year Flood Hazard

A 100-year flood has a one percent probability of occurring in any year. This is considered to be a severe flood, but one with a reasonable possibility of occurrence for purposes of land use planning, property protection, and human safety. The U. S. Army Corps of Engineers under contract to the Flood Insurance Administration prepared a series of maps showing flood hazard zones, and is in the process of revising the floodplain. Figure IX-6 displays the proposed 100-year floodplain.

The County has made a number of levee improvements and has submitted an appeal to the Federal Emergency Management Agency to remove some lands in western Manteca from the proposed 100-year floodplain designation (see Figure IX-6). No decision on the appeal has been reached as of April 1988.

The County's Flood Management Program, presented in Chart IX-2, includes a list of actions to minimize the effects of flooding (San Joaquin County Planning Department 1986).

Localized Drainage Problems

As discussed in Chapter VI, Public Facilities and Services, existing drainage problems were identified in the 1987 Storm Drainage Master Plan. Problems resulting from standing water can be avoided by solving localized drainage problems.

Dam Failure Flood Hazard

Despite the number of dams near San Joaquin County, the risk of dam failure inundating portions of the County is considered low, though the degree and nature of risk for each dam is unknown. Dam failure can occur under three general conditions: as a result of an earthquake, an isolated incident due to structural instability, or because of intense rain in excess of design capacity. Figure IX-7 indicates areas subject to inundation in the event of dam failure.

Section 8589.5 of the California Government Code requires local jurisdictions to adopt emergency procedures for the evacuation of populated areas in inundation areas identified by dam owners.

The local Office of Emergency Services has prepared a Dam Failure Plan. This plan includes a description of dams, direction of floodwaters, responsibilities of local jurisdictions, and evacuation plans.

FIRE HAZARDS

The threat to Manteca from wildland fires is extremely low due to the agricultural lands surrounding the city. Structural fires (e.g., electrical shorts and cooking fires) are the principal fire threats to the city, but the level of risk is generally low due to the relatively recent construction of most of Manteca's buildings.

CHART IX-2

FLOOD MANAGEMENT PROGRAMS IN SAN JOAQUIN COUNTY

<u>AREA OF ACTION</u>	<u>ACTION</u>
Flood Protection System	Levee construction, improvement, and maintenance. Support of flood protection aspects of upstream reservoirs.
General Plan	Use of new flood information in the preparation of the County's General Plan. Reconsideration of areas planned for urban development which are subject to flooding.
Zoning Ordinance	Revision of the floodplain zoning ordinance. Application of flood zones and regulations to areas subject to flood hazard.
Subdivision Ordinance	Incorporation of flood protection measures into the revision of the County Subdivision Ordinance.
Future Development	Review of all land use proposals (use permits, development plans, excavation permits, parcel maps, subdivision maps) for flood hazard. Condition projects to require flood protection. Require the delineation of floodways and the extent of 100-year floodplains on all maps.
Existing Development	Identification of areas of existing urban development and public installations in need of flood protection. Develop methods of protection appropriate to each area of hazard.

National Flood Insurance
Program

Participation in the program.

Provision of flood information, as requested,
to lending institutions and insurance
agents.

Establishment of record-keeping and report
procedures as required by the flood
insurance regulations.

Public Information

Provision of written material explaining
flood hazards and flood management in
San Joaquin County.

Notify all property owners in the 100-year
floodplain.

Hold area meetings to inform the public
of the flood hazard and of the County's
Flood Management Program.

Emergency Preparedness

Prepare an emergency services plan for
dealing with flooding from a 100-year
flood. Include determination of mass
care centers, evacuation routes, and
issuance of flood warnings, etc.

Source: San Joaquin County Planning Division, June 1986

EMERGENCY RESPONSE

Emergency response organization and responsibilities in Manteca are governed by the City of Manteca's Basic Emergency Plan, the current edition of which was prepared in March 1983.

Chart IX-3 outlines the organizational structure to be instituted in the case of a peacetime emergency. The City Manager (Emergency Services Director) and other City staff fulfill specified responsibilities outlined in Chart IX-3, according to the Emergency Response Plan. The plan also contains detailed annexes covering fire operations, law enforcement, public information, public works/engineering, and medical.

NOISE

Noise Measurements and Terminology

Sound travels through the air as waves of minute air pressure fluctuations caused by a vibration of some sort. In general, sound waves travel away from the noise source as an expanding spherical surface. The energy contained in a sound wave is consequently spread over an increasing area as it travels away from the source. This results in a decrease in loudness at greater distances from the noise source.

Measurements and descriptions of sounds are usually based on various combinations of the following factors:

- o the vibrational frequency characteristics of the sound, measured as sound wave cycles per second (Hertz); this determines the "pitch" of a sound;
- o the total sound energy being radiated by a source, usually reported as a sound power level;
- o the actual pressure changes experienced at a particular location, usually measured as a sound pressure level; the frequency characteristics and sound pressure level combine to determine the "loudness" of a sound at a particular location;
- o the duration of a sound;
- o the changes in frequency characteristics or pressure levels through time.

Most sound measurements are based on sound pressure levels at various frequency ranges, with results reported using a decibel (dB) scale. Decibel scales are a logarithmic index based on a ratio of the actual pressure fluctuations generated by sound waves compared to a standard reference pressure value.



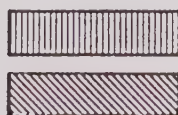
MANTECA CALIFORNIA General Plan



0 1/2 1 2
Scale in Miles

J. LAURENCE MINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

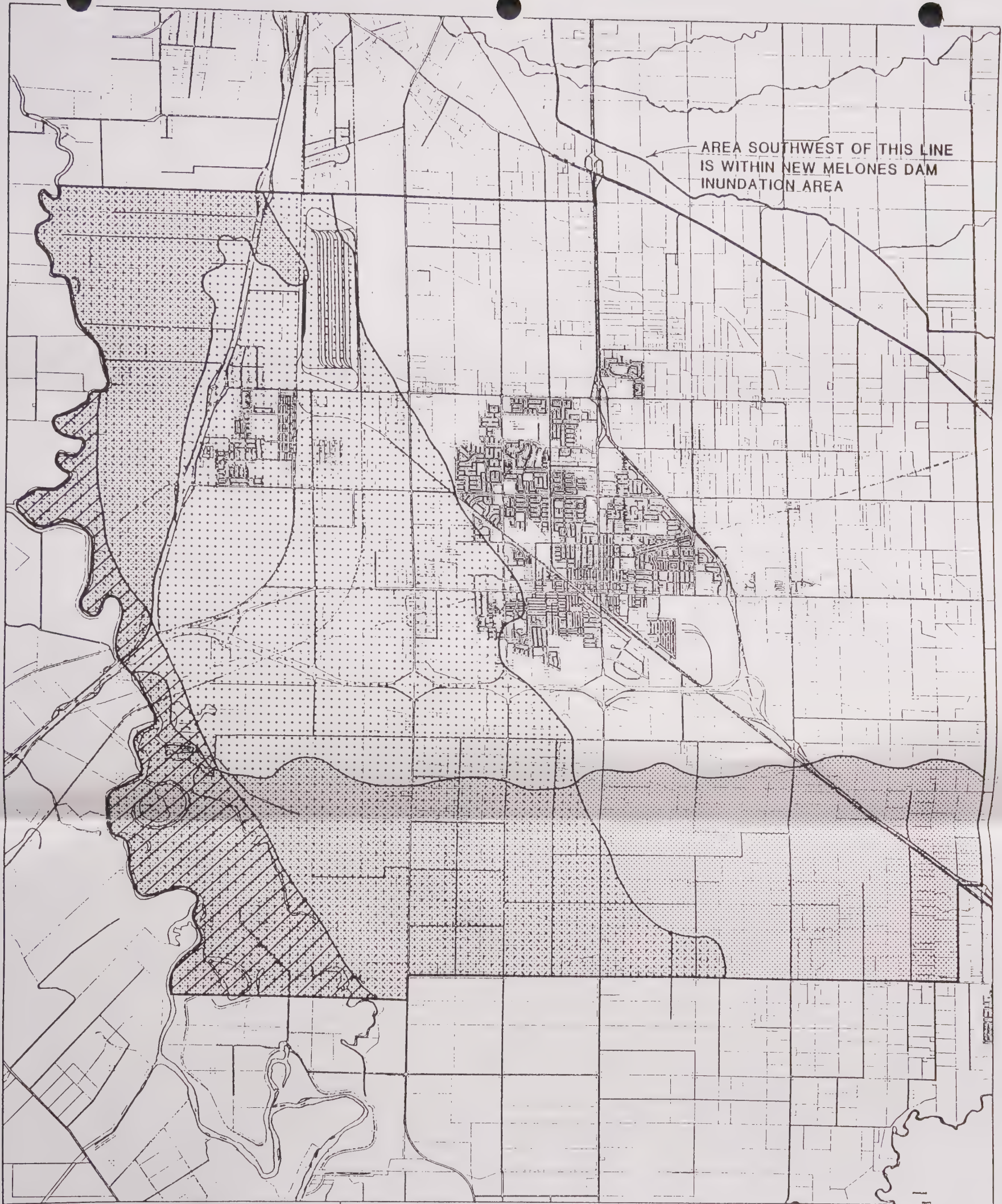
FIGURE IX-6. 100-YEAR FLOODPLAIN BOUNDARY



PROPOSED 100-YEAR FLOODPLAIN

AREA PENDING APPEAL TO BE REMOVED FROM
PROPOSED FLOODPLAIN DESIGNATION

Source: San Joaquin County Planning Department, 1985; San Joaquin
County Flood Control & Water Conservation District, 1987



MANTECA
CALIFORNIA
General Plan



0 1/2 1 2
Scale in Miles

J. LAURENCE MINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

FIGURE IX-7. INUNDATION AREAS FOR DAMS IN VICINITY



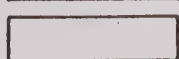
INUNDATION AREA BELOW PINE FLAT LAKE



INUNDATION AREA BELOW TULLOCH DAM



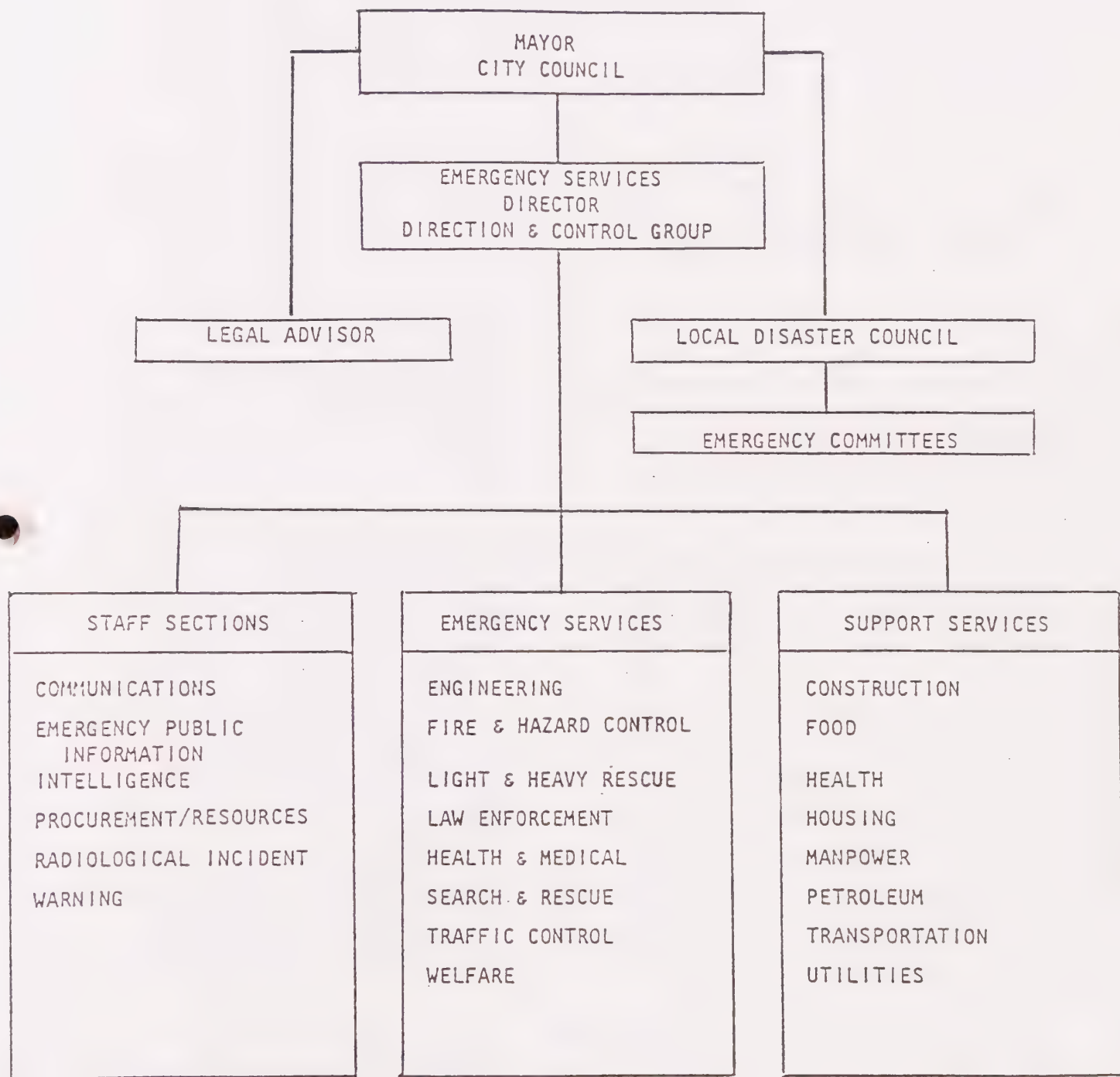
INUNDATION AREA BELOW SAN LUIS DAM



INUNDATION AREA BELOW NEW MELONES DAM
(Entire Planning Area)

CHART IX-3

PEACETIME EMERGENCY ORGANIZATION CHART



Source: City of Manteca Basic Emergency Plan, 1983

General Purpose Decibel Scales

Most sounds consist of a broad range of sound frequencies. Because the human ear is not equally sensitive to all frequencies, a large number of frequency weighting schemes have been used to develop noise measuring instruments that approximate the way the human ear responds to noise levels. The "A weighted" decibel scale (dBA) is the most widely used for this purpose. The A weighting scale significantly reduces the measured pressure level for low frequency sounds while slightly increasing the measured pressure level for some high frequency sounds. Chart IX-4 illustrates dBA levels associated with a variety of noise sources.

Other frequency weighting schemes are used for specialized purposes. The "C weighted" decibel scale (dBC) is often used to characterize low frequency sounds capable of inducing vibrations in buildings or other structures. The C weighting scale does not significantly reduce the measured pressure level for low frequency components of a sound.

Varying noise levels are often described in terms of the equivalent constant decibel level. Equivalent noise levels (Leq) are used to develop single-value descriptions of average noise exposure over various periods of time. Such average noise exposure ratings often include additional weighting factors for annoyance potential due to time of day or other considerations. The Leq data used for these average noise exposure descriptors generally use A-weighted sound level measurements.

Decibel Scales Reflecting Annoyance Potential

Average noise exposure over a 24-hour period is often presented as a day-night average sound level (Ldn). Ldn values are calculated from hourly Leq values, with the Leq values for the nighttime period (10 PM - 7 AM) increased by 10 dB to reflect the greater disturbance potential from nighttime noises.

The community noise equivalent level (CNEL) is also used to characterize average noise levels over a 24-hour period, with weighting factors for evening and nighttime noise levels. Leq values for the evening period (7 PM - 10 PM) are increased by 5 dB while Leq values for the nighttime period (10 PM - 7 AM) are increased by 10 dB. Except in unusual situations, the CNEL descriptor will be within 1.5 dB of the Ldn descriptor.

It should be noted that single-value average noise descriptors (such as CNEL or Ldn values) are most appropriately applied to variable but relatively continuous sources of noise. Typical urban noise conditions, highway traffic, and major commercial airports are examples where CNEL and Ldn descriptors are most appropriate.

Noise Descriptors for Brief Noise Events

The annoyance potential of intermittent or short duration noise events is often underestimated by 24-hour average noise descriptors. Railroad operations, aircraft activity at general aviation airports, testing of

CHART IX-4

WEIGHTED SOUND LEVELS AND HUMAN RESPONSE

<u>SOUND SOURCE</u>	<u>dB (A) *</u>	<u>RESPONSE CRITERIA</u>
	—150	
Carrier Deck Jet Operation	—140	
		Painfully Loud
	—130	Limit Amplified Speech
Jet Takeoff (200 feet)	—120	
Discotheque		Maximum Vocal Effort
Auto Horn (3 feet)		
Riveting Machine	—110	
Jet Takeoff (2,000 feet)		
Shout (0.5 feet)	—100	
N.Y. Subway Station		Very Annoying
Heavy Truck (50 feet)	— 90	Hearing Damage (8 hours)
Pneumatic Drill (50 feet)		
	— 80	Annoying
Freight Train (50 feet)		
Freeway Traffic (50 feet)	— 70	Telephone Use Difficult
		Intrusive
Air Conditioning Unit (20 feet)	— 60	
Light Auto Traffic (50 feet)		
	— 50	Quiet
Living room		
Bedroom	— 40	
Library		
Soft Whisper (15 feet)	— 30	Very Quiet
Broadcasting Studio	— 20	
	— 10	Just Audible
	— 0	Threshold of Hearing

*Typical A - Weighted sound levels taken with a sound-level meter and expressed as decibels on the scale. The "A" scale approximates the frequency response of the human ear.

Source: U. S. Council on Environmental Quality 1970.

emergency generators, pile driving, and blasting activities may require evaluations using other types of noise descriptors. Peak noise levels, the duration of individual noise events, and the repetition pattern of events are often used to describe intermittent or short duration noise conditions. Statistical descriptions (percent of time when noise levels exceed various thresholds) are also used to characterize noise conditions over relatively brief periods of time. Noise events lasting more than half a minute can be characterized by the Leq of the event.

Individual noise events of brief duration (no more than several seconds) are sometimes characterized using the single event noise exposure level (SENEL) descriptor. The SENEL of a noise event is calculated as the cumulative (not average) A-weighted sound exposure during a discrete noise event, integrated with respect to a one-second time frame. The SENEL calculation is sometimes restricted to that portion of a noise event when sound levels exceed some particular threshold level. In other cases, the calculations are restricted to that portion of the noise event when sound levels are within 10 dBA of the peak sound level.

Decibel Scales for Impulse Noise

Impulse sounds are usually defined as noise events producing a significant increase in sound level but lasting less than two seconds (often less than one second). Examples of impulse noise sources include pile driving, punch presses, gunshots, fireworks, and blasting activities. Impulse noises are usually described using the sound exposure level (SEL) descriptor. The SEL measure represents the cumulative sound exposure during a particular noise event, integrated with respect to a one-second time frame. Mathematically, SEL and SENEL descriptors are the same; the SENEL descriptor implies an A-weighted basis, while SEL descriptors often use other decibel weighting schemes.

The SEL measure is equivalent to the Leq value of a one-second noise event producing the same cumulative acoustic energy as the actual noise event being analyzed. In effect, the SEL measure "spreads" or "compresses" the noise event to fit a fixed one-second time interval. If the actual duration of the noise event is less than one second, the SEL value will be less than the Leq value for the event. If the duration of the noise event exceeds 1 second, the SEL value will exceed the Leq of the event.

Impulse noises of substantial magnitude (blasting; sonic booms) are often characterized using unweighted (flat) or C-weighted SEL measures. Less intense impulse noises are often characterized using an A-weighted SEL measure. As a practical matter, most SEL measurements are performed using procedures that restrict the time interval over which actual measurements or subsequent calculations are made. Most commonly, this involves defining the noise event as the period when sound levels exceed 85 dBC for daytime events or 75 dBC for nighttime events. Recent evaluations of community annoyance from military training activities have recommended against use of such thresholds (Schomer, 1982).

Working With Decibel Values

The nature of dB scales means that individual dB ratings for different noise sources cannot be added directly to give the dB rating of the combination of these sources. Two noise sources producing equal dB ratings at a given location will produce a composite noise level 3 dB greater than either sound alone. When two noise sources differ by 10 dB, the composite noise level will be only 0.4 dB greater than the louder source alone. Most people have difficulty distinguishing the louder of two noise sources that differ by less than 1.5-2 dB. In general, a 10 dB increase in noise level is perceived as a doubling in loudness. A 2 dB increase represents a 15 percent increase in loudness. Chart IX-5 illustrates the relationship between decibel changes and perceived loudness.

Sound levels from an isolated noise source will typically decrease by about 6 dB for every doubling of distance away from the noise source. When the noise source is essentially a line (i.e., vehicle traffic on a highway), noise levels decrease by about 3 dB for every doubling of distance.

Other Considerations

Noise levels at a different distances from a noise source are influenced by factors other than just distance from the noise source. Topographic features and structural barriers can absorb, reflect, or scatter sound waves, resulting in lower noise levels (increased sound attenuation rates). Atmospheric conditions (wind speed and direction; humidity levels; temperatures) and the frequency characteristics of the sound itself also affect sound attenuation rates.

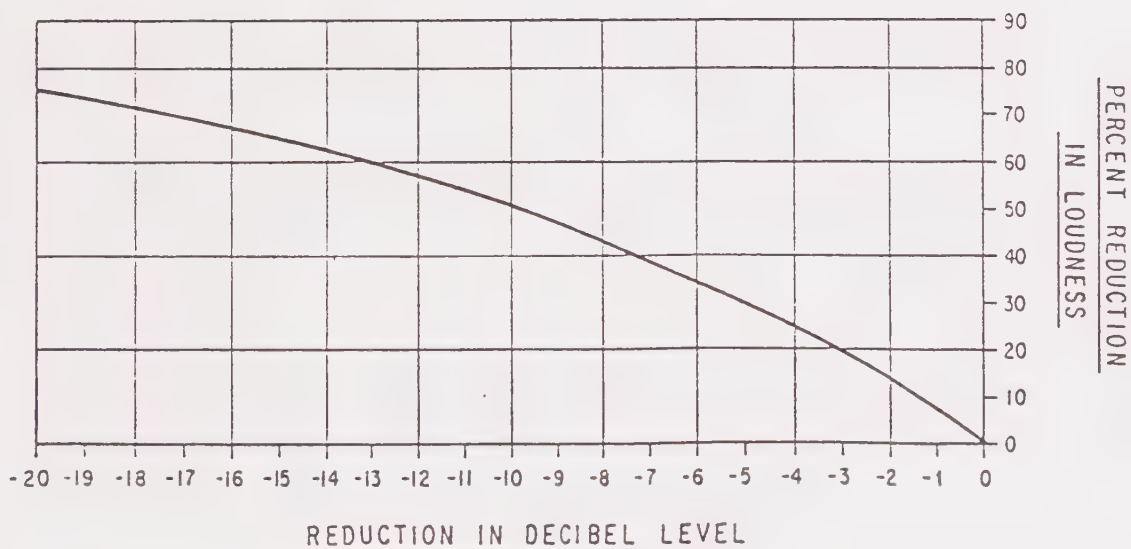
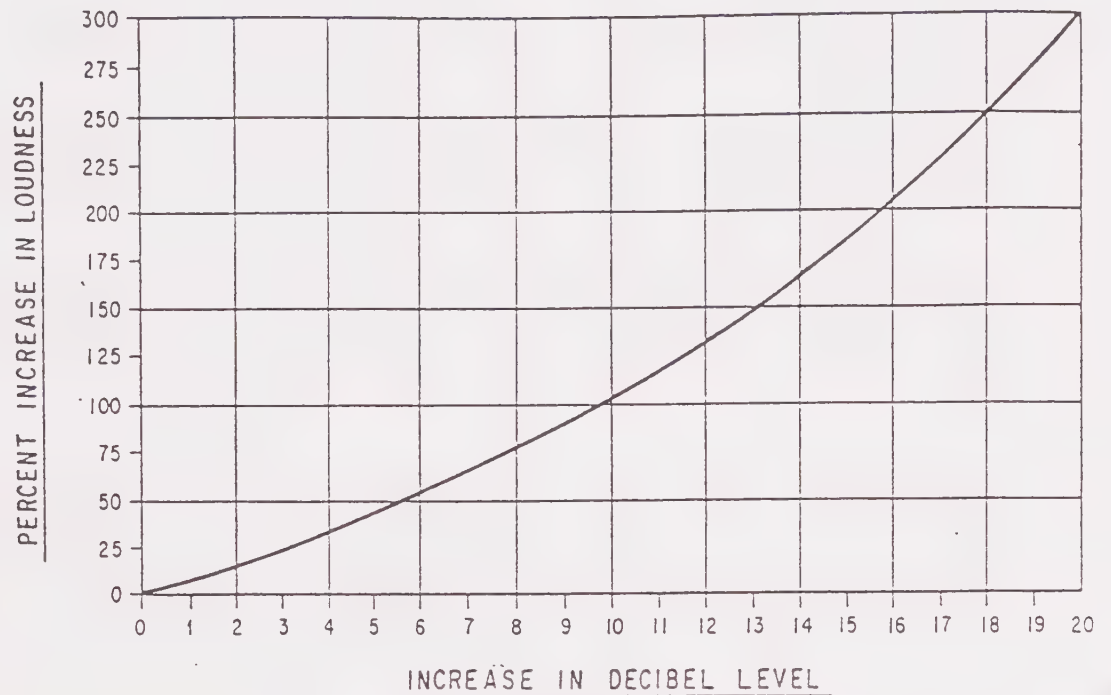
The atmosphere absorbs some of the energy content of sound waves, thus increasing sound attenuation rates over large distances. Such atmospheric absorption is greatest for high frequency components of a sound, resulting in a lower pitch to the sound at greater distances. Atmospheric absorption is also dependent on temperature and humidity conditions, with a somewhat complex relationship among temperature, humidity, and frequency components of the sound.

Humidity effects are most significant for higher sound frequencies and cool temperatures. For a particular frequency range, there will be a relative humidity at which maximum atmospheric absorption occurs. Atmospheric absorption will be less at higher and lower relative humidities. For any particular temperature, maximum atmospheric absorption occurs at somewhat lower relative humidities for low frequency sounds and at somewhat higher relative humidities for high frequency sounds. At warm temperatures, maximum atmospheric absorption occurs at low humidities for all sound frequencies.

Temperature effects on atmospheric absorption are greatest at low humidities, but are generally less significant than humidity effects. Generally, there is a temperature at which maximum atmospheric absorption occurs; absorption is less at both higher and lower temperatures. Maximum absorption occurs at low temperatures for low frequencies and at higher temperatures for high frequencies. At high relative humidities, atmospheric absorption is greatest at low temperatures for all sound frequencies.

CHART IX-5

RELATIONSHIP BETWEEN DECIBEL CHANGES AND LOUDNESS



Source: Jones & Stokes Associates

Overall, atmospheric absorption is greatest for high frequency sounds under conditions of low relative humidities and moderately cool temperatures. Atmospheric absorption is least for low frequency sounds at high relative humidities and warm temperatures.

Echoes off topographic features or buildings can sometimes result in higher sound levels (lower sound attenuation rates) than expected. Temperature inversion and altitudinal changes in wind conditions can at times diffract and "focus" sound waves to a location at considerable distance from the noise source. In such situations, the vertical changes in atmospheric conditions affect sound waves much the way lenses and prisms can bend and focus light rays. Focusing effects are usually noticeable only for very intense noise sources such as blasting operations.

Guidelines for Interpreting Noise Levels

Various federal, state, and local agencies have developed guidelines for evaluating the compatibility of different land uses and various noise levels.

The U.S. Environmental Protection Agency (1974) has identified indoor and outdoor noise limits to protect public health and welfare "with an adequate margin of safety." Ldn values of 55 dB (outdoors) and 45 dB (indoors) were identified as desirable for residential, educational, and health care areas. Noise level criteria for commercial and industrial areas were identified as 24-hour Leq values of 70 dB (both outdoors and indoors).

The U.S. Federal Highway Administration (1982) has adopted criteria for evaluating the acceptability of noise impacts associated with federally-funded highway projects. These criteria are based on peak hour Leq noise levels, not Ldn or 24-hour Leq values. Criteria for residential, educational, and health care facilities are 67 dB (outdoors) and 52 dB (indoors). The criterion for commercial and industrial areas is 72 dB (outdoors).

The U.S. Department of Housing and Urban Development (HUD) has established guidelines for evaluating noise impacts on residential projects seeking financing support under various HUD programs. Sites are generally considered acceptable for residential use if they are exposed to outdoor Ldn values of 65 dB or less. Sites are considered "normally unacceptable" if they are exposed to outdoor Ldn values of 65-75 dB. Sites are considered unacceptable if they are exposed to outdoor Ldn values above 75 dB.

The Office of Noise Control of the California Department of Health Services has published guidelines for the noise element of local general plans. These guidelines include a noise level/land use compatibility chart. That chart categorizes various outdoor Ldn ranges into as many as four compatibility categories (normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable) depending on land use. For many land uses, the chart shows overlapping Ldn ranges for two or more compatibility categories. These overlapping Ldn ranges indicate that local conditions (existing noise levels and community attitudes toward dominant noise sources) should be considered in evaluating land use compatibility at specific locations.

The normally acceptable range for low density residential uses is identified as less than 60 dB, while the conditionally acceptable range is 55-70 dB.

The normally acceptable range for high density residential uses is identified as Ldn values below 65 dB, while the conditionally acceptable range is identified as 60-70 dB. For educational and medical facilities, Ldn values below 70 dB are considered normally acceptable, while Ldn values of 60-70 dB are considered conditionally acceptable. For office and commercial land uses, Ldn values below 70 dB are considered normally acceptable, while Ldn values of 67.5-77.5 are categorized as conditionally acceptable.

The California Department of Housing and Community Development has adopted noise insulation performance standards for new hotels, motels, and dwellings other than detached single family structures (California Administrative Code, Title 24, Division T25). These standards require that "interior community noise equivalent levels (CNEL) with windows closed, attributable to exterior sources, shall not exceed an annual CNEL of 45 dB in any habitable room."

Existing Noise Conditions

Major Noise Sources

Major noise sources in most communities include highway traffic, railroad operations, aircraft activity, and household equipment and activities. Noise from industrial operations may produce localized noise problems in some communities. Highway traffic and railroad operations represent the dominant noise source in Manteca.

Highway Traffic

Noise from highway traffic is determined by the volume of traffic, vehicle speeds, and the amount of heavy truck traffic. Vehicle speeds and the amount of heavy truck traffic are particularly important. Major traffic noise sources in Manteca include Highway 99, State Route 120, Yosemite Avenue, Main Street, Louise Avenue, and Airport Way. Properties adjacent to these roadways are generally exposed to CNEL levels of 65-70 dB. Table IX-1 summarizes noise, contour data for major streets in the Planning Area. These noise contours are also shown in Figures IX-8 and IX-9.

Railroad Operations

Noise from railroad operations in Manteca is greatest along the Southern Pacific Co. tracks. Noise levels during the passage of individual trains are about 78 dBA at a distance of 100 feet from the tracks. The current level of Southern Pacific operations involves about 17 trains per day.

FIGURE IX-8. EXISTING NOISE CONTOURS - MANTECA

Source: Jones & Stokes Associates, 1985

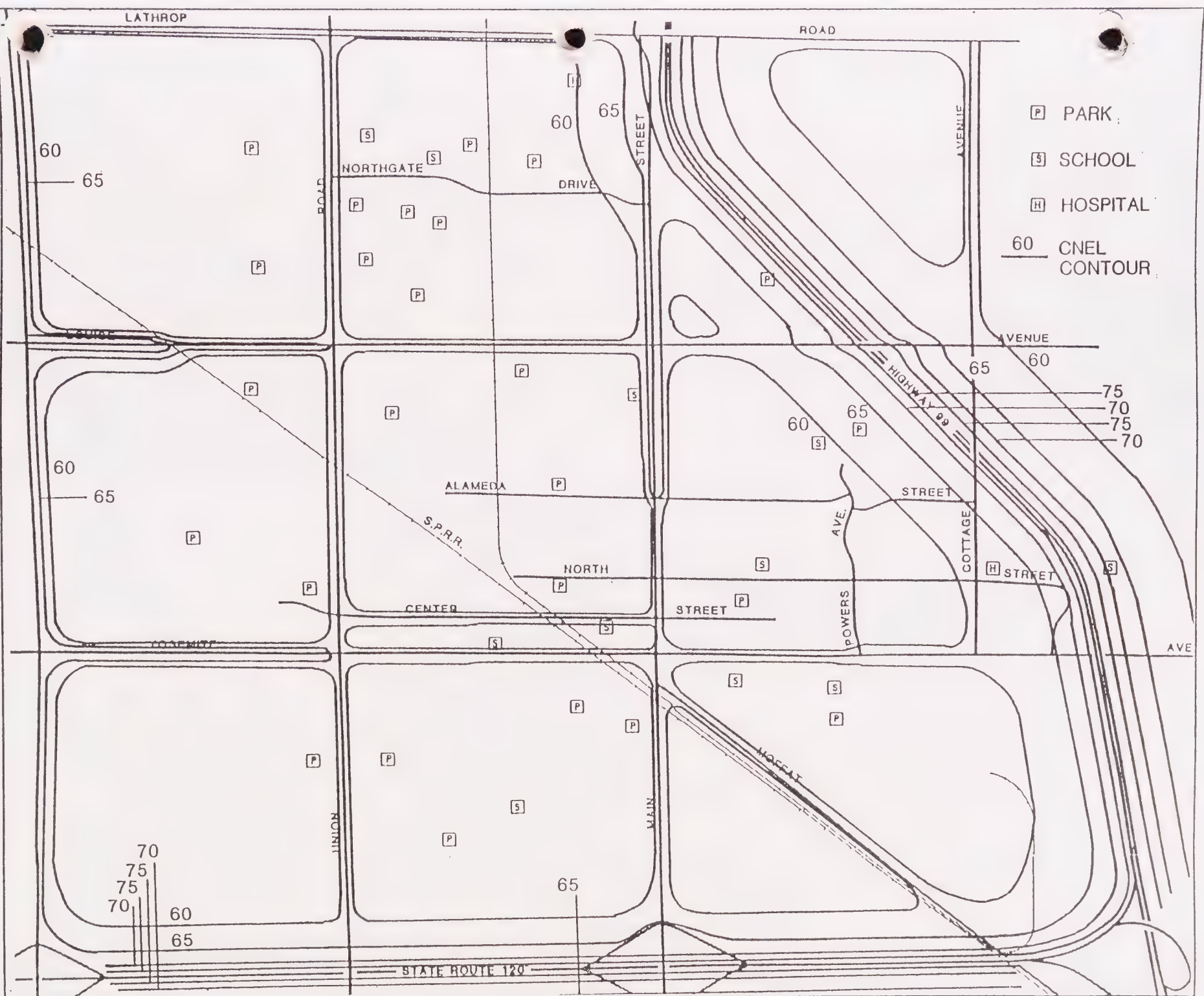


FIGURE IX-9. NOISE CONTOURS
ALONG I-5

65 CNEL CONTOURS (dB)

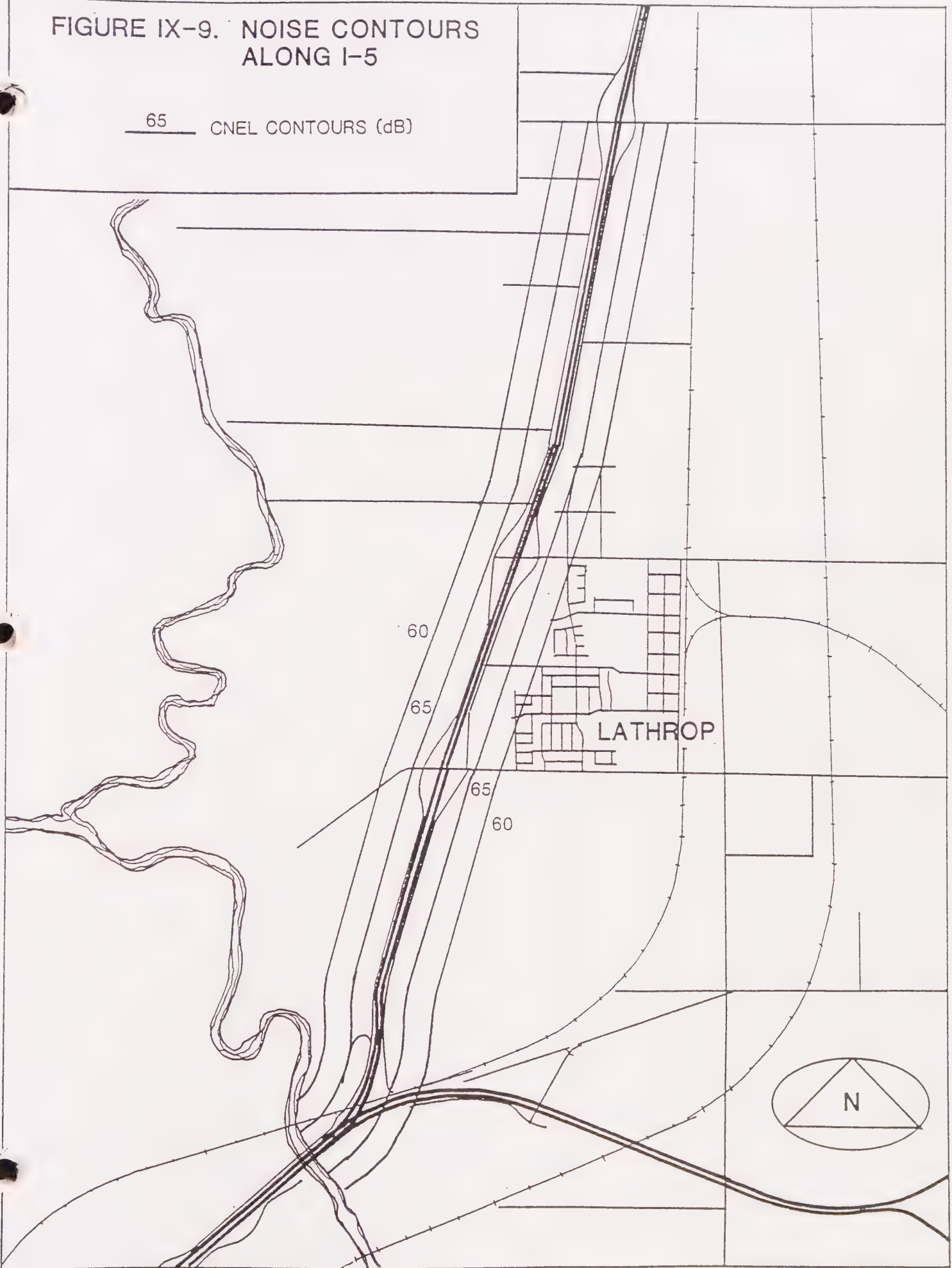


TABLE IX-1

PROJECTED CNEL CONTOUR DISTANCES IN 1985 FOR MANTECA

			Side of Road	75 dB	70 dB	65 dB	60 dB
Airport Way Center Street	SR 120 Bypass	Lathrop	Both	6	31	86	204
	Union	Walnut	North	0	7	21	43
	Union	Walnut	South	0	0	14	50
	Walnut	SPRR	Both	0	0	5	26
	SPRR	Main	North	0	0	9	30
	SPRR	Main	South	0	0	11	29
	Main	Fremont	Both	0	0	0	15
Cottage Ave	Yosemite	North	East	0	0	0	13
	Yosemite	North	West	0	0	0	5
	North	SR99	Both	0	0	5	19
	SR99	Louise	Both	0	10	37	93
	Louise	Lathrop	Both	0	0	14	45
Edison Street	Main	Powers	Both	0	0	5	17
	Powers	Alpine	Both	0	0	0	10
Lathrop Road	Airport	Union	Both	0	9	33	86
	Union	TWSRR	Both	0	0	23	74
	TWSRR	Main	Both	0	1	27	84
	Main	SR99	Both	0	3	25	72
	SR99	Cottage	Both	0	8	32	83
Louise Avenue	Airport Way	SPRR	North	24	48	85	145
	Airport Way	SPRR	South	19	59	146	334
	SPRR	Union	North	0	2	22	53
	SPRR	Union	South	0	0	24	89
	Union	TWSRR	Both	0	3	24	57
	TWSRR	Main	Both	0	5	27	61
	Main	SR99	Both	0	15	42	85
	SR99	Cottage	Both	0	6	27	72
	SR120	Moffat	East	0	0	10	38
Main Street	SR120	Moffat	West	0	0	8	61
	Moffat	Yosemite	East	0	0	5	23
	Moffat	Yosemite	West	0	0	0	29
	Yosemite	Center	Both	0	1	13	31
	Center	North	Both	0	0	15	39
	North	Alameda	Both	0	0	13	36
	Alameda	Edison	Both	0	1	40	123
	Edison	Louise	Both	0	0	44	143
	Louise	SR99	Both	0	8	67	193
	SR99	Lathrop	Both	0	1	16	48
Moffat Blvd.	Main	Powers	Both	0	0	9	38
	Powers	SR99	Both	0	0	19	59
North Street	Main	Fremont	Both	0	0	8	24
	Fremont	Powers	Both	0	0	9	27
	Powers	Cottage	Both	0	0	6	22
Powers Avenue	Moffat	Yosemite	Both	0	0	0	9
	Yosemite	North	Both	0	0	12	33
	North	Edison	Both	0	0	9	27

TABLE IX-1 (Continued)

SR99	SR120	Lathrop	Both	77	209	495	1113
SR120	Airport	SR99	Both	46	124	292	655
Union Road	SR120	Yosemite	Both	0	0	3	24
	Yosemite	Center	Both	0	0	2	37
	Center	Louise	Both	0	0	17	74
	Louise	Lathrop	Both	0	2	22	53
Yosemite Ave.	Airport	Union	Both	0	0	36	123
	Union	Locust	Both	0	0	16	82
	Locust	SPRR	Both	0	0	14	36
	SPRR	Main	Both	16	24	37	56
	Main	Fremont	Both	0	0	10	54
	Fremont	Powers	North	0	0	15	40
	Fremont	Powers	South	0	0	11	56
	Powers	Cottage	North	5	20	43	80
	Powers	Cottage	South	0	14	53	138
	Cottage	SR99	Both	0	16	59	150

Source: BBN Laboratory, Inc., 1985.

Industrial Facilities

Noise from industrial facilities is seldom a problem as long as most noise-generating equipment and activities occur inside closed buildings. Outdoor equipment and activities (stockpiling operations, material handling operations, etc.) can at times pose localized noise problems. Traffic associated with facility operations is probably the most common noise source affecting adjacent areas. Backup warning bells on fork lifts and related vehicles may produce minor local noise problems. Whistles for signaling break periods and shift changes seldom cause noise problems.

The major industrial facilities in the Manteca Planning Area are briefly described in the following paragraphs.

- o Bishop Industries is a manufacturing plant which produces marble vanity tops and panels. Hours of operation are 7:00 a.m. to 4:00 p.m. The plant operates year round. Stationary noise-generating equipment includes buffers, grinders, vibrators, and air compressors.
- o Celpril Industries, Inc. is a research seed company which coats seeds. Hours of operation are 7:30 a.m. to 4:00 p.m. The company operates all round.
- o Dana Corporation is an auto parts distribution center. Hours of operation are 7:00 a.m. to 4:30 p.m. The center operates year round. Mobile noise-generating equipment includes fork lifts.
- o Double "A" Truss is a manufacturing plant which produces commercial greenhouses. Hours of operation are 7:00 a.m. to 3:30 p.m. The plant operates year round. Stationary noise-generating equipment includes welders and band saws. Mobile noise-generating equipment includes fork lifts.
- o Indy Electronics is a plant which assembles integrated circuits. Hours of operation are 6:30 a.m. to midnight and includes two shifts. When business is at its peak, the plant will have three shifts.
- o Ramsey Seed is a seed manufacturing plant. Hours of operation are 8:00 a.m. to 5:00 p.m. The plant operates year round. Stationary noise-generating equipment includes mixers and dust collectors. Mobile noise-generating equipment includes fork lifts.
- o Manteca Bean Company is a bean cleaning and packaging plant. Beans are received in bulk and are processed at the plant. Hours of operation are 7:00 a.m. to 3:30 p.m. The plant operates year round, except for two weeks in July when the employees go on vacation. Stationary noise-generating equipment includes the bean cleaning equipment. Mobile noise-generating equipment includes yard trucks and fork lifts.

- o Shinko, Inc. is a manufacturing plant which produces lead frames for electronics. Hours of operation are 7:30 a.m. to 4:30 p.m. Summer hours are 6:30 a.m. to 3:30 p.m. depending on employee votes. Stationary noise-generating equipment includes stamping presses. mobile noise-generating equipment includes fork lifts.
- o Simplot is a manufacturing plant which formulates agricultural chemicals (i.e.: chemical fertilizers). Hours of operation are 8:00 a.m. to 4:30 p.m. The plant operates 24 hours a day, 7 days a week. Stationary noise-generating equipment includes electrically driven equipment such as motors, air blowers, and pumps. Mobile noise-generating equipment includes front end loaders, pick-up trucks, and fork lifts.

Noise Sensitive Areas

The following noise sensitive land uses have been identified within the Manteca Planning Area:

- o Residential Areas

All residential dwellings including single family, multiple family, mobile homes, etc.
- o Schools

Kindergarten through eighth grades
 French Camp Elementary School
 Golden West Elementary School
 Lathrop Elementary School
 Lincoln Elementary School
 Neil Hafley Elementary School
 New Haven Elementary School
 Nile Garden Elementary School
 Sequoia Elementary School
 Shasta Elementary School
 Yosemite Elementary School

Ninth through twelfth grades
 Manteca High School
 East Union High School
 Calla Continuation High School
- o Hospital

Manteca Hospital
- o Convalescent Hospitals

Manteca Convalescent Hospital
 Palmhaven Convalescent Hospital

o Parks and Recreation Areas

City of Manteca

Baccilieri Park
Bay Meadows Park
Center Street Tennis Courts and Scout Hut
Colony Park
Crestwood Park
Doxey Park
Franciscan Park
Greystone Park
Hildebrand Park
Library Park
Lincoln Park and Pool
William Martin Park
Mayor's Park
Mini Park
Northgate Community Park
Parr's Park
St. Francis Park
Sequoia Park
Shasta Park
Southside Park
Union Road Park
Union West Park
Wilson Park
Yosemite Park

FINDINGS

- o While the possibility of fault rupture within the Planning Area is extremely low, the Planning Area is subject to seismically-induced groundshaking and liquefaction in the event of a significant earthquake along one of the faults in the region. For the most part, these potential effects can be mitigated in the design of new structures. Critical facilities, such as hospitals and fire stations, in particular need to be designed to withstand the effects of seismic shaking.
- o Expansive soils are a development constraint in the southwest part of the Planning Area, but can be largely mitigated through proper drainage and foundation design.
- o Flooding within the western half of the Planning Area is a significant threat. The consequences of flooding can be largely avoided by adherence to federal floodplain management standards.
- o In the event of the collapse of one of the major dams in the region, a substantial part, if not all of the Planning Area, would be inundated. While this possibility has no direct implications for land use planning in Manteca, the information concerning areas of potential flooding has been used by the local Office of Emergency Services in developing evacuation plans.
- o Wildland fire hazards pose virtually no risk to the Planning Area. Structural fire hazards in the Planning Area are what would normally be associated with development of relatively recent construction.
- o The major traffic noise sources in Manteca include Highway 99 and State Route 120. As traffic volumes increase, major arterials such as Louise Avenue, Main Street, Airport Way, and Yosemite Avenue will become more significant noise sources.

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GLOSSARY

Ambient Noise Level - The composite of noise from all sources. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

CNEL - Community Noise Equivalent Level - The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 a.m. and after addition of ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

Critical Facility - Includes facilities housing or serving many people or otherwise posing unusual hazards in case of damage from or malfunction during an earthquake, such as hospitals, fire, police, and emergency service facilities, utility "lifeline" facilities, such as water, electricity, and gas supply, sewage disposal, and communications and transportation facilities.

Decibel, dB - A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micro-newtons per square meter).

Equivalent Energy Level, Leq - The sound level corresponding to a steady state sound level containing the same total energy as a time varying signal over a given sample period. Leq is typically computer over 1, 8, and 24-hour sample periods.

Fault - A fracture in the earth's crust forming a boundary between rock masses that have shifted.

Active Fault - A fault that has moved recently and which is like to move again. For planning purposes, "active fault" is usually defined as one that shows movement within the last 11,000 years and can be expected to move within the next 100 years.

Potentially Active Fault - (1) A fault that moved within the Quaternary Period before the Holocene Epoch (the last 2,000,000 to 11,000 years); (2) A fault which, because it is judged to be capable of ground rupture or shaking, poses an unacceptable risk for a proposed structure.

Inactive Fault - A fault which shows no evidence of movement in recent geologic time and no potential for movement in the relatively near future.

Ground Failure - Mudslide, landslide, liquefaction, or the seismic compaction of soils.

Hazardous Building - A building that may be hazardous to the life in the event of an earthquake because it:

- (1) Was constructed prior to the adoption and enforcement of local codes requiring earthquake resistant design of buildings;

- (2) Is constructed of unreinforced masonry; or
- (3) Exhibits any one of the following characteristics:
 - o Exterior parapets and ornamentation that may fall on passersby;
 - o Exterior walls that are not anchored to the floors, roof, or foundation;
 - o Sheeting on roofs or floors incapable of withstanding lateral loads;
 - o Large openings in walls that may cause damage from torsional forces; or
 - o Lack of an effective system to resist lateral forces.

Hazardous Material - An injurious substance, including pesticides, herbicides, toxic metals and chemicals, liquified natural gas, explosives, volatile chemicals, and nuclear fuels.

Ldn - Day/Night Average Level - The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of 10 decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

(Note:) CNEL and Ldn represent daily levels of noise exposure averaged on an annual basis, while Leq represents the equivalent energy noise exposure for a shorter time period, typically one hour.

Liquefaction - A process by which water-saturated granular soils transform from a solid to a liquid state because of a sudden shock or strain.

Noise Exposure Contours - Lines drawn about a noise source indicating constant energy levels of noise exposure.

Potentially Hazardous Facility - Includes dams and reservoirs, nuclear reactors, tall buildings, other buildings housing many people, such as schools, prisons, and hospitals, and other structures containing large quantities of potentially explosive or toxic materials.

Subsidence - The gradual, local settling or sinking of the earth's surface with little or no horizontal motion. (Subsidence is usually the result of gas, oil, or water extraction, hydrocompaction, or peak oxidation, and not the result of a landslide or slope failure.)

Surface Rupture - A break in the ground's surface and associated deformation resulting from the movement of a fault.

Wildland - A nonurban, natural area which contains uncultivated land, timber, range, watershed, brush, or grasslands.

CHAPTER X. SCENIC RESOURCES & URBAN DESIGN

CHAPTER X

SCENIC RESOURCES AND URBAN DESIGN

INTRODUCTION

Manteca's scenic resources and its built environment define the visual quality of the city. That is, together, natural and landform features, cultivated and natural landscapes, roadways, buildings, and other human-made features constitute the image of the city. The form and character of these features are important factors in giving visual identity, structure, and meaning to the city.

The perceptions that residents and visitors hold of Manteca are greatly influenced by the visual image they have formed. If these images are pleasant, vivid, distinctive, and memorable, the viewer establishes a positive, harmonious relationship with the built environment, and the city becomes a meaningful and delightful experience. By contrast, if the built environment appears confusing, ugly, monotonous, chaotic, congested or dirty, the viewer can become disoriented, anxious and detached, and the city thus becomes a source of stress and displeasure. Of course, each city has a mix of these positive and negative attributes. An important objective of urban design is to enhance the positive ones and minimize the negative ones.

This chapter sets forth a series of basic concepts and guiding principles for structuring and enhancing a city's visual and built environment, provides an inventory of Manteca's scenic resources and major urban design elements, and identifies issues related to the management of scenic resources and to the design of the urban built environment.

Although this report draws on the limited existing information on scenic resources and urban design topics available from public agencies, it consists primarily of original field work and analysis. A survey of local perceptions of the community provided additional information.

SCENIC RESOURCES

This section on scenic resources includes a discussion of those existing features which define the scenic quality of the city. It also identifies features which, in their present state, are not considered scenic but which have the potential for development as scenic resources. Finally, it discusses those elements and characteristics which constitute unaesthetic features and thus warrant future efforts to mitigate or eliminate their adverse effects.

Context

Manteca is located at the center of California's Central Valley and near the north end of the San Joaquin Valley. Typical of the Central Valley, the Manteca area is virtually flat, a quality which determines how the city is perceived. With the exception of views from highway overpasses which provide brief panoramic views, the entire city scope and surrounding landscape are viewed from the groundlevel perspective.

This topographic characteristic has a significant effect on the scenic resources and visual qualities of the Planning Area. Scenic resources can be analyzed in terms of their proximity to the viewer. When the views of scenic resources are at a distance of up to one-quarter or one-half of a mile, the view is classified as a "foreground" view. Views at a distance of between one-half of a mile and three miles are classified as "middleground" views, and views of greater than three miles are classified as "background" views.

Since the Planning Area landscape is flat and characterized by agricultural lands with substantial tree cover, including orchards, hedgerows, wind-breaks, and riparian vegetation, the extensive tree cover limits most views to foreground views and middleground views. The majority of views from highways consist of foreground and middleground views; views from city streets consist almost exclusively of foreground views. Many middleground views and most background views are obscured by the tree canopy.

On particularly clear days, however, there are distant views of the Sierra Nevada Crest 100 miles to the east, and the Mt. Diablo Range 25 miles to the west and southwest. Mount Boardman and Eagle Mountain located to the southwest are the most prominent of these background features.

The city is surrounded by intensive agricultural uses, primarily orchards and field crops. Although no major watercourse lies within or contiguous to the city, the San Joaquin River, located four miles to the west, defines the Planning Area boundary for approximately seven miles.

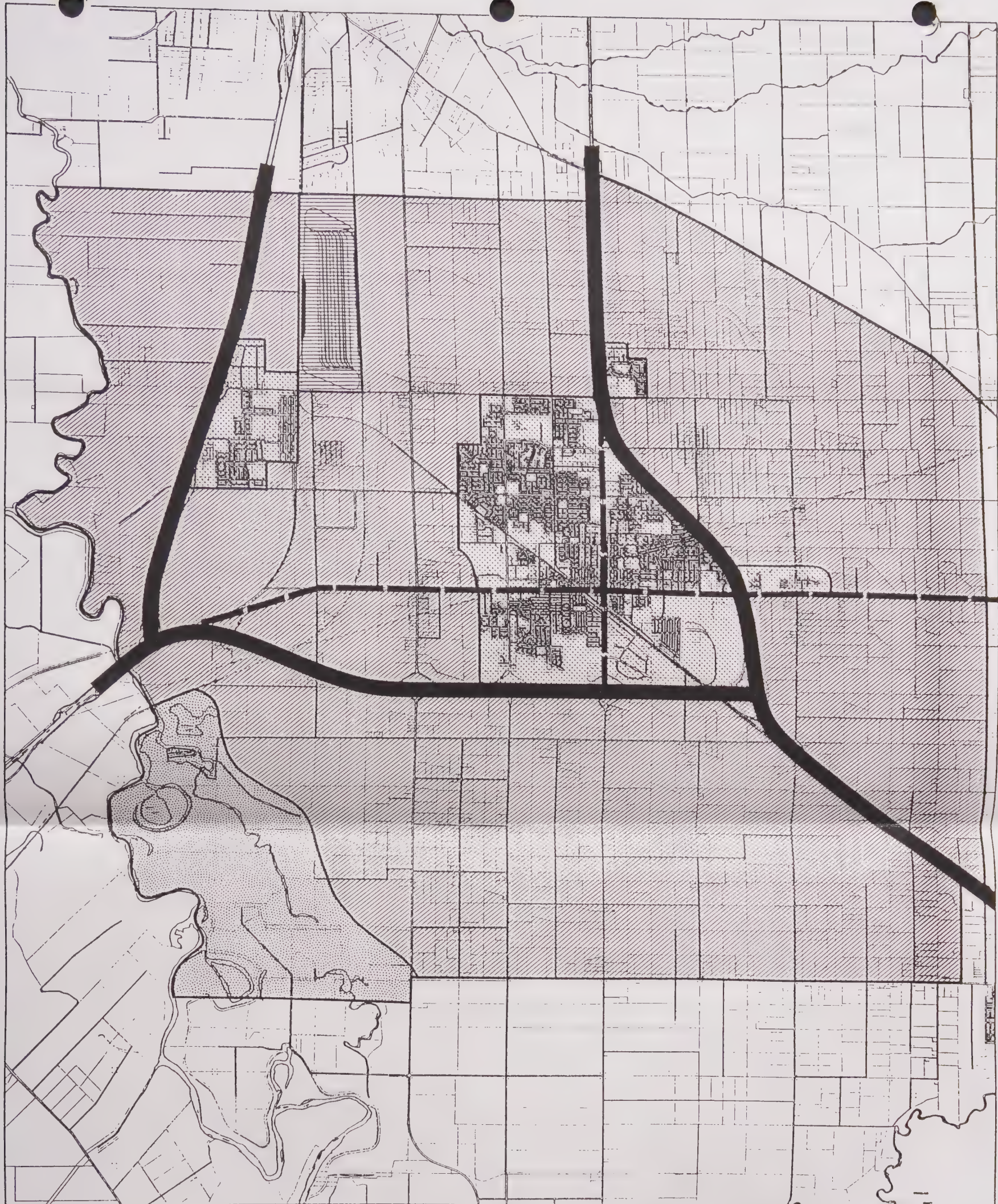
Manteca is located about 12 miles south of downtown Stockton. The community of Lathrop is located in the northwest corner of the Planning Area, less than three miles from the northwest edge of Manteca. The community of Ripon is five miles to the southeast, and is located just beyond, but contiguous to the Planning Area.

Although the distance between northern Manteca and southern Stockton is only four miles, the rural agricultural character of these four miles is critically important to the scenic and open-space qualities which define the city. Only the southern two miles of this buffer are located within the Planning Area. If these lands become intensively developed or suburbanized, Manteca will lose its visual definition to the north and simply become the southern extension of the greater Stockton metropolitan area. Given the rate of expansion during the period 1965-75, when the developed area of Manteca expanded approximately 1.5 miles in a northerly direction, the need for protecting open space between Stockton and Manteca is readily apparent.

Inventory

This subsection is organized into two parts: the first part describes a series of "visual units"--areas of common visual and scenic characteristics, and the second part discusses the visual qualities, types of views, and primary visual elements within these visual units.

The Planning Area can be disaggregated into four primary visual units as shown in Figure X-1. Approximately 70 percent of the Planning Area can be classified as "rural," characterized by agricultural and rural residential






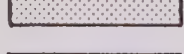
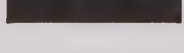

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0 1/2 1 2
Scale in Miles

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JONES & STOKES ASSOCIATES

FIGURE X-1. PLANNING AREA VISUAL UNITS

-  PRIMARILY, AGRICULTURE
-  NATURAL RIPARIAN / UPPER DELTA AREA / WALTHALL SLOUGH
-  INSTITUTIONAL / SHARPE ARMY DEPOT
-  URBANIZED AREAS
-  PRIMARY HIGHWAY VIEW CORRIDORS
-  SECONDARY HIGHWAY VIEW CORRIDORS

Source: Pepper Associates, November 1985

landscapes. An additional 15 percent of the area--Manteca and Lathrop, can be considered urbanized, and 10 percent--the Wathall Slough area, is a riparian/delta-influence landscape. The Sharpe Army Depot constitutes five percent of the Planning Area and can be characterized as an "institutional" landscape. Each of these visual units has a high level of internal homogeneity and is readily distinguishable from the other units.

Three major highways divide or border the Planning Area and constitute important viewing corridors. Interstate 5 is conterminous to the northern three-fifths of the western boundary of the Planning Area. State Route 120 bisects the area into northern and southern halves, and Highway 99 divides the area from the southeastern corner to the center of the northern boundary. Major segments of these routes are sufficiently elevated above the surrounding landscape to provide an important viewing advantage. In fact, the only external views which define the geographic location of Manteca are from these routes.

Urbanized Manteca can be further disaggregated into visual units as shown in Figure X-2. There are five primary visual units within the city: (1) neighborhood residential (divided into four quadrants defined by Main Street and Yosemite Avenue); (2) urban open-space (defined by parks and school grounds); (3) the downtown commercial area; (4) the strip commercial areas bordering Main Street and Yosemite Avenue (discussed in terms of the north-south and east-west segments of these streets); and (5) the industrial area, located within the southeastern quadrant of the city.

Views of Rural Areas

As discussed above, views of and within the rural areas are generally limited and defined by tree canopies. Since the topography is virtually flat, these views are almost exclusively foreground views of agricultural landscapes with the apparent horizon determined by the nearest tree cover. Orchards, field, crops, and agricultural buildings constitute the principal visual elements. The Sharpe Army Depot which is largely devoid of trees contrasts sharply with the surrounding agricultural landscape. Wathall Slough and the San Joaquin River in the southwestern corner of the Planning Area provide the most significant views of a "natural landscape." The limited public access to this area renders it visually less important in spite of its relative uniqueness.

Views of Manteca from the Surrounding Rural Landscape

A number of features define and visually differentiate the city from the surrounding landscape. The most significant of these features is the agricultural land surrounding the city. The transition between agricultural areas and urbanized Manteca is abrupt and distinctive. This contrast serves to visually define the city's edge.

Viewed from a distance, the extensive tree-cover characteristic of the residential sections of Manteca enhances the visual contrast between town and surrounding landscape.

Several vertical features are readily apparent from middleground and background views, namely, the downtown water tower near Main Street and Moffat Boulevard, the buildings, water tower, and storage silos at the Spreckels complex. The locations of these elements are shown in Figure

X-3. The center-city water tower is the tallest and most dominant element in the central area of the city. The Spreckels complex, located three-quarters of a mile east of the downtown water tower, is characterized by significantly larger structures and is the most visible city feature. The factory contains four silos, a tall, isolated water tower, and a large, labyrinthine factory building. These structures provide important town "markers," clearly identifying the city's location within the greater landscape.

A continuous line of Pacific Gas and Electric (PG&E) electrical transmission towers crosses the city in a northeast-southwest direction as illustrated in Figure X-3. These towers and the connecting power lines constitute a third highly visible built feature with respect to background, middle-ground, and foreground views. These towers are unfortunately quite dominant and unsightly, and no attempt has been made to screen views from nearby neighborhoods. In fact, in some neighborhoods the electrical lines run directly over residences.

Views of the Surrounding Rural Landscape Within the City

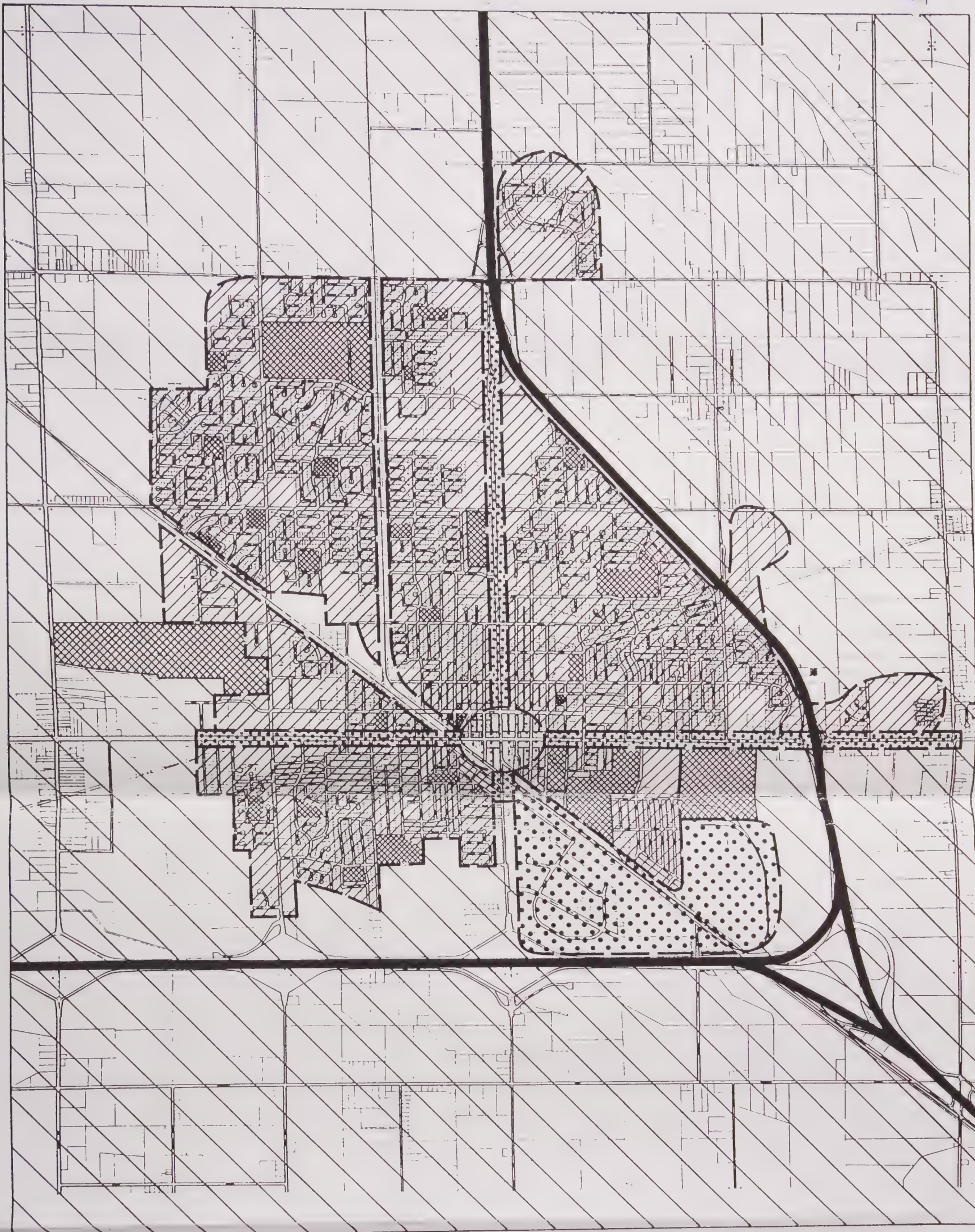
Views from within the city toward the surrounding landscape are limited due to the lack of topographic variation. Distant views are largely confined to visually unobstructed corridors formed by roads and railroad rights-of-way. Highway 99 limits views to the east along Yosemite Avenue and some other east-west aligned streets, and provides a visual "edge" to the city. The overpass spanning Highway 120 limits views to the south along Main Street, thus this highway constitutes another visual city boundary.

Views of the City from Within

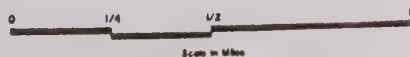
The extensive tree-cover, primarily in the residential areas, constitutes the most dominant scenic feature within Manteca. With the exception of the most recent developments, neighborhoods in Manteca benefit from the amenity value of well-established street trees and ample, generally well-kept lawns and gardens. The recent subdivisions have all been landscaped, although they lack mature tree-cover. Several small pockets of older homes, some of historic significance, constitute important localized scenic resource.

An expanded description of views and visual/scenic quality of the various areas of the city follows. Views of the landscape and built environment along Yosemite Avenue and Main Street are described in the subsequent subsection.

Downtown Area. Although substantial efforts to improve the downtown area of Manteca, especially along Yosemite Avenue, are clearly evident in the form of landscaping, paved pedestrian paths, "gateways," built-in benches, and covered bus stops, the area still lacks visual coherence. This is in part due to the numerous vacant lots and parking lots contiguous to both Yosemite Avenue and Main Street, disrupting the continuity of urban forms. Unobstructed, flat planes such as these take on added visual importance because they give a sense of depth uncharacteristic or 'hard to come by' in flat terrain. In many cases, large blank facades are contiguous to Yosemite Avenue or to vacant lots along Yosemite Avenue. These are highly visible and often unattractive by virtue of the fact that they lack architectural character and detail, and create a barren visual quality.

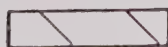









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FIGURE X-2 URBAN AREA VISUAL UNITS

-  RURAL LANDSCAPE (AGRICULTURE & RURAL RESIDENTIAL)
-  RESIDENTIAL
-  URBAN OPEN SPACE (PARKS & SCHOOLS)
-  DOWNTOWN COMMERCIAL
-  HIGHWAY COMMERCIAL
-  INDUSTRIAL
-  HIGHWAY VIEW CORRIDORS
-  VISUAL UNIT BOUNDARIES

Source: Pepper Associates, November 1985



MANTECA CALIFORNIA General Plan



J. LAURENCE MINTIER & ASSOCIATES
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FIGURE X-3. DISTINCTIVE VISUAL FEATURES

- WATER TOWER
- SILOS
- FACTORY
- TRANSMISSION LINE
- RAILROAD LINE
- HIGHWAY OVERPASS
- TREE CANOPY (LIMITS AND DEFINES VIEWS)

Source: Pepper Associates, November 1985

With few exceptions the most visually appealing portions of the downtown area are all outside the Main Street and Yosemite Avenue corridors. The short segment of West Yosemite Avenue between Main Street and Pacific is the most attractive section of downtown commercial development, and the well-landscaped old City Hall area provides visual relief from the otherwise largely undistinctive and undifferentiated downtown area. The greatest concentration of historic buildings also occurs within the downtown area west of Main Street.

The intersection of Yosemite Avenue and Main Street--the most important intersection in Manteca--is unfortunately a visual and scenic liability. Blank building facades and two parking lots dominate this critical intersection and constitute a wholly undistinctive and negative visual image for Manteca.

Southeast Quadrant. It is clear that a substantial effort has been made to upgrade some of Manteca's industrial areas, particularly Manteca Industrial Park, by extensive landscaping (trees and lawns) around industrial site perimeters. The area north of Manteca Industrial Park, however, needs serious attention, given its proximity to the downtown area. There are still several negative aspects to the industrial park, including a need for better building siting, street tree maintenance, and the management of vacant parcels.

The portion of this quadrant northeast of the railroad contains an older residential area which is visually well defined and appealing. This area also contains substantial urban open-space resources including Manteca High School, Lincoln School, Lincoln Park and Pool, and the Gus Schmiedt Stadium. In spite of the close proximity of this area to the Spreckels plant, it is well buffered from the industrial operations.

Southwest Quadrant. This quadrant of the city is almost exclusively residential with the exception of a small triangle defined by the railroad, South Main Street, and Yosemite Avenue. Although there is considerable variety in the size and age of houses, these residential neighborhoods are generally well maintained, and the overall visual quality is quite high. Most of the quadrant contains housing built prior to the explosive growth which started in the mid-60s. In fact, the line of demarcation between this earlier development and the recent construction is quite apparent. There are some very small houses and a few multiple units in the older portion of the quadrant.

Landscape and open-space elements also add visual definition and scenic quality to this area. The substantial tree cover in this quadrant contributes considerably to its overall visual appeal. Five public parks--Baccilieri Park, South Side Park, Sequoia Park, Yosemite Park, and Union West Park plus Sequoia School constitute an impressive urban open-space resource within this quadrant.

Northwest Quadrant. This quadrant contains the major portion of the city's housing stock and experienced the most of the explosive growth since the mid-1960s. There is a pre-1935 portion of this residential area oriented toward the historic downtown area. Portions of this older area contain pockets of somewhat rundown housing. This older area is similar to the southwest quadrant in its appearance. It also contains one school and four parks.

It is this area which is also the most adversely affected by the railroad rights-of-way, since in this instance, the railroad actually divides residential areas as contrasted with separating uses as is the case in the other quadrants. The Southern Pacific Railroad and the Tidewater Southern Railroad rights-of-way divide this quadrant into three separate and distinct visual areas. The rights-of-way themselves constitute a substantial negative aesthetic element in the urban fabric of the city.

A PG&E electrical power substation and the transmission towers and lines also constitute adverse visual elements in this portion of the quadrant. The substation is unsightly, and the transmission towers tend to dominate views near west Yosemite Avenue and Center Street.

Most of Manteca's civic facilities are located within this quadrant, including the Civic Center (containing the City Hall, the Police Department, the Administrative Center, the Council Chambers, and the Senior Citizen Center), the Public Library, the Parks and Recreation Department, the Post Office, the Social Security Office, and the County Health Center. These facilities are all located within a corridor defined by Yosemite Avenue and Center Street which is, unfortunately, divided into two units by the railroad. In general, these facilities are visually appealing; the complex along Manteca Avenue and the Civic Center are of very high visual quality.

Approximately three-quarters of this quadrant is composed of housing built since 1965; roughly one-half of the homes appear to have been built in the 1980s. These homes are predominantly typical, moderately-sized suburban residences, although there are a number of multiple unit enclaves within the area. Most developments in this area are well landscaped in terms of both the street rights-of-way and the private yards and gardens. As the vegetation matures in the newer areas and the visual dominance of the buildings is reduced, the visual quality will increase correspondingly.

Concrete block walls have been used to attenuate noise and to provide visual privacy for a number of newer developments located along major streets. Although these objectives have no doubt been realized, it has been at the cost of creating visual barriers and giving the street environments a rather hostile, institutional appearance.

Few other uses are found within this post-1965 development area of the quadrant except for parks and schools. There are ten parks--Doxey Park, Saint Francis Park, Mayors Park, Northgate Park, Colony Park, Greystone Park, William Martin Park, Franciscan Park, Crestwood Park, and West Park (a private park). This portion of the quadrant also contains four schools--East Union High School, Golden West School, Neal Hafley School, and John McFall School. These facilities also constitute a major visual and scenic resource.

Northeast Quadrant. The northeast quadrant of the city is quite similar in appearance to the northwest quadrant, although it is only one-half the size. Approximately one-half of this quadrant--the area south of Alameda Avenue and West of Cottage Avenue--was built out prior to 1965. The balance of the quadrant consists primarily of single family residential developments constructed during the past two decades, roughly one-half of which has occurred since 1980.

There are a number of large and attractive older homes in the area near Yosemite Avenue and Center Street between Main Street and Fremont Avenue. This general area also contains a substantial number of older residences converted into commercial uses, including a number of health-care related facilities. Manteca Hospital is located at the eastern end of North Street. The Senior Citizens Center, Lindberg School, and the Justice Court Building are also located within the quadrant.

In terms of public open-space, this quadrant has only three parks: Hilderbrand Park, Shasta Park, and Springtime Park, as well as Shasta School.

The PG&E transmission towers and lines cross the quadrant. Subdivision lot lines actually express the alignment in the Sierra Street-Shasta Street area, however, there is no open-space below the transmission lines, as they pass directly over residential lots and the residences themselves.

Highway 99 defines the eastern boundary of this quadrant and the city except for a small pocket of recent residential development east of Highway 99 along State Route 120, and a small subdivision at East Louise Avenue and Cottage Avenue.

West Yosemite Avenue. Entering the city from an easterly direction along Yosemite Avenue, the western entrance to the city is marked by a sign that reads "Manteca Welcomes You" located at the city limits. Unfortunately, this sign is largely obscured from motorist's views by a large tree. Thus, this explicit statement of arrival is largely ineffectual.

The first evidence of the city along this route is a commercial strip development located near Yosemite Avenue and Pacific Road. This development encompasses a wide range of commercial and retail businesses. The visual character of this area is typical of most highway strip development and is generally cluttered and lacks visual coherence. There is also a relatively new suburban shopping center in this vicinity, at Yosemite and Union, which is well landscaped and very uniform in terms of building scale, character, and exterior materials.

The oldest residential area in the city is located along or near Yosemite Avenue between Maple Street and the railroad crossing near Sycamore Avenue. This street segment benefits from many large, well established trees, well kept lawns, and generally well-maintained older homes, some of historic significance.

Due in part to the width of the right-of-way, the railroad crossing constitutes a 'gap' in the visual continuity of West Yosemite Avenue. Views along the railroad right-of-way are among the longest unobstructed views within the city, and the absence of landscape features draws attention to the barren nature of this crossing area.

The downtown commercial area located between the crossing and Main Street is the most visually appealing street segment of the major circulation elements. Building scale, the absence of major blank facades, the general lack of vacant land, and the street trees and street furniture characteristic of this street segment are exemplar, and can serve as a model for other segments in need of attention.

East Yosemite Avenue. Fragmented strip commercial development, punctuated by residential uses, Manteca High School, and agricultural use, occur along the eastern portion of Yosemite Avenue. This roadway segment, thus, varies considerably in terms of its visual quality. Although the Spreckels factory is highly visible to the south from this stretch of roadway, a large grove of olive trees separates this industrial use from the road, greatly enhancing the area's visual quality. The mixed-use/highway-commercial character of most of this road segment give it a somewhat chaotic appearance and renders it visually undistinctive. Some portions are visually unattractive and warrant upgrading.

Although the street segment between Lincoln and Main Streets has been upgraded with street furniture and paving, the overall visual quality is rather low due to visually dominant blank building facades, vacant lots, and to some degree, the immature street trees. Until there is additional development, this street segment will likely remain a visual and scenic liability within the major downtown circulation system.

South Main Street. The views and visual quality of South Main Street are likewise varied; unfortunately, the quality tends to decline closer to the downtown area. The divided and landscaped southern segment of this roadway is a strong visual asset. This segment establishes a positive scenic quality to the southern entrance to the city, although it does not constitute an "entry" in and of itself. The well landscaped Main Street boundary of the Manteca Industrial Park and the residential area contiguous to this road segment are likewise positive visual elements. However, in approaching the railroad crossing near Wetmore Street, the visual quality of the industrial area declines along the eastern side of the street.

As with the West Yosemite Avenue street segment, there is an appreciable gap in the cityscape at the point of the railroad crossing, due primarily to the width and openness of the right-of-way.

The extensive asphalt parking lots which announce the southern edge of the downtown area (starting at the New Deal Shopping area and continuing through the Bank of America parking lot) are visual and scenic liabilities. These visually dominant parking areas, combined with the noticeable vacant land and blank building facades in this area, create a strong negative force to overcome as South Main Street meets Yosemite Avenue.

North Main Street. North Main Street is almost exclusively defined by commercial uses which vary substantially in terms of visual quality. Although there is a divided roadway and extensive landscaping at the northernmost portion of this street segment, there is no sense of "entry" into the city at the north. There are two major suburban shopping centers located along this northernmost street segment. Both of these retail centers are relatively new and are well landscaped, particularly the area near the intersection of Louise Avenue and North Main Street. One notable difference between the visual character of the two shopping centers is the successful use of landscaped berms (mounds) to screen views of the parking area at the Longs Drug Store complex; the Safeway-Sprouse Reitz complex has no such screening and is much more visible from Main Street.

An active street tree program is very much in evidence along North Main Street. Variation in street width appears to be a factor in explaining the breaks in the street tree locations, although there are no doubt a number of reasons for the discontinuities.

Unfortunately, the visual quality between Alameda Street and Yosemite Avenue--the street segment which announces the downtown area from the north, is generally negative. It epitomizes the image of strip commercial development and tends to decline in quality closer to the downtown as is the case to the south and east. As a result, three of the four principal street entries to the downtown are characterized by visually unappealing strip commercial development.

Scenic Highways

Scenic Highways are segments of federal, state, or local roads that have been designated by the state or local government as roads traversing scenic corridors and for which the state or local government has developed a program for protection of the scenic corridor. There are three levels of scenic highway designation.

State Scenic Highways are segments of state highways that the State Legislature has included in the Master Plan of State Highways Eligible for Official Scenic Highway Designation and the Director of the Department of Transportation (Caltrans) has officially designated as such at the request of local government.

County Scenic Highways are segments of county highways that the Director of the Department of Transportation has officially so designated at the request of the local government. To achieve this designation, the local government must provide the same level of protection to the scenic corridor as required for designation as a State Scenic Highway. Local scenic highways are segments of state highways or local roads or streets the local government feels are of scenic significance, but which do not qualify for state designation.

None of the roads within the Planning Area appears on the State Master Plan as designated or eligible scenic highways, and none has been designated to date by San Joaquin County or the City of Manteca as scenic highways.

Factors Influencing Scenic Resources

There are a number of factors influencing the scenic resources of Manteca. First, by virtue of its geographic location in the flat agricultural landscape of the San Joaquin Valley, the city's visual image is isolated from the influences of elements external to the city. That is, the only scenic views of landscapes outside the city (distant views of the Sierra Nevada to the east and the Mt. Diablo Range to the west) have virtually no effect on the city's scenic quality. As a result, the scenic resources of Manteca lie wholly within the city, primarily in the form of trees and buildings. The high scenic quality of the agricultural land surrounding the city are visible only at the perimeter of the urban area, and, thus, are important scenic resources in terms of providing a landscape context for the city and giving definition to the city edge.

As a result of this geographic containment, the nature and quality of the scenic resources of the city are wholly within the control of the City. These resources will be significantly enhanced or reduced as a function of the City's decisions regarding land use patterns, design or architectural controls, landscape requirements, street tree programs and sign control. There are no scenic elements external to the city which can offset the impact of these internal city elements.

Second, since the scenic quality of the city is almost wholly a function of foreground views, those areas visible along major streets are by definition the scenic resources, thus the visual quality of these areas is central to the image of the city. The view from the road system is, therefore, a primary determinant of the city's scenic quality--street trees, median strips, buildings, signs, and parking areas along major streets are critical elements in terms of scenic resources. The fact that much of the land along the major city streets is in low intensity commercial strip development has a profound adverse effect on the scenic character of the city.

Third, the fact that a state highway, a significant street link between two highways, two railroads, and a major electrical transmission line cut directly through the urban fabric is itself an important factor influencing the visual character and scenic quality of the city. These major infrastructure elements are not within the direct power of the City to control or regulate.

Fourth, undirected, private development economics are frequently a major determinant of the built environment, with a resulting effect on visual and scenic quality. When development is unplanned and poorly coordinated, the resulting visual character is usually chaotic and unaesthetic in appearance. The predominance of marginal quality strip commercial development along the city's major thoroughfare suggests that this factor has been present historically.

Fifth, there is also an apparent lack of investment in the downtown area, exacerbating the problem of improving the visual character and scenic quality of the city core. Environments with high aesthetic quality invariably require effective and timely planning and investment. This factor must be fully recognized and considered in determining appropriate courses of action to upgrade the scenic resources of the city.

URBAN DESIGN

This section includes a discussion of those existing features which constitute the primary features of the city which give it form, structure, and meaning. It also identifies those features which provide visual clarity and coherence to the image of the city. Most importantly, it discusses these features and their design functions in the context of the city as a single entity, since the objective of urban design is to provide a sense of the whole to the structure and composition of the built environment. This section includes a discussion of selected urban design concepts and principals which are central to an understanding of this important ingredient in urban planning.

Context and Overview

Manteca combines the advantages of living in an urban environment with the advantages of living in a rural setting. Residents enjoy the conveniences of city living without the multitude of urban problems associated with larger, more dense urban areas. The city scale makes it possible, for example, for residents to personally know the owners and managers of local retail shops and businesses, or be familiar with the people in local civic and political leadership.

The most distinctive elements in the greater Manteca landscape are the water towers and silos discussed in the previous section. At the urban scale the most distinctive elements are much more subtle. The combination of flat topography and extensive tree cover provides substantial closure to the built environment. Thus, the structure, orientation, and image of the city is dependent on a combination of the major circulation routes and the character of the built environment at strategic locations within the city.

As discussed in the section on scenic resources in this chapter, the major thoroughfares and the downtown area are presently liabilities in terms of their visual quality. These features are central to the structure, meaning, and image of Manteca, and in the aggregate, convey the impression of a large suburb without a central city. With a few notable and isolated exceptions most of the commercial areas and the downtown lack a strong "sense of place." As a result, Manteca looks very much like any number of small cities experiencing rapid suburban growth accompanied by a corresponding decline in the center city. Furthermore, those activities which normally bring pedestrian life to a downtown such as dining, entertainment, and lodging establishments are very limited in downtown Manteca, and as a consequence, the city lacks pedestrian vitality.

The residential neighborhoods and small park-like portions of the downtown, provide a striking contrast. The tree-lined streets with well-tended lawns and well kept residences, reflect considerable pride and care and give the neighborhoods visual quality and appeal. There is also evidence of greater pedestrian activity in the outlying areas than exists in the downtown.

Urban Design Concepts and Inventory

In order to coherently discuss the visual structure of a city, it is necessary to have an "image" of the city which simplifies its many complexities into a manageable number of essential elements and relationships. The most useful and widely-used system for identifying and classifying the important elements of urban form was formulated by Kevin Lynch in his book The Image of the City. Lynch's work, one of the most important modern contributions to large-scale design theory, provides a method of evaluating city form and is an important guide for the building and rebuilding of cities.

Two principal questions are posed by Lynch: (1) 'What does a city's form actually mean to the people who live there?' and (2) 'What can the city planner do to make a city's image more vivid and memorable to its residents?'. Through a number of case studies constructed to answer these questions, Lynch was able to identify five basic elements used to define the image of the city, and to show how these elements give the city a 'sense of place'. These five elements--paths, edges, districts, nodes, and

landmarks--are briefly described below and this conceptual structure is used to analyze Manteca's physical and visual structure. Figure X-4 identifies the geographic location of the major features discussed within these five elements. Figure X-5 shows the important urban design assets and liabilities.

Paths

Paths are the channels along which the observer customarily, occasionally, or potentially moves. These include streets, walkways, transit lines, canals, and railroads. For many people, these are the predominant elements in their image. People observe the city while moving through it, and along these paths the other environmental elements are arranged and related.

All the streets within the Planning Area constitute paths. The most significant paths in terms of the overall use, location of commercial districts, and community image, are Yosemite Avenue and Main Street. These two streets divide the city into the four quadrants (districts) described in the previous section and serve as the dominant circulation axes along which many of the major activity centers are located. The visual images of the city as perceived from these primary paths vary considerably. Among the strong images conveyed along Main Street are open fields, industrial development, strip commercial development, and suburban shopping centers. Along Yosemite Avenue one also views open fields, strip commercial development, shopping centers, as well as residential areas and downtown.

The frequent transitions along these major paths and the often ambiguous or undistinctive nature of these transitions add a sense of disorder to the perceptions of the resident and non-resident traveler alike.

In addition to these two main circulation axes, the city has a regular grid system of streets which constitute a secondary set of paths, although these are spaced at rather large intervals. Because of the large number of cul-de-sac, loop, and intermittent streets in Manteca's street system, these few major grid streets take on considerably greater importance in terms of both use and their role in providing urban structure.

Yosemite and Main Street do not appear to serve as important pedestrian paths. There is obviously some pedestrian activity along the downtown commercial segment of Yosemite Avenue near Main Street, although pedestrian traffic in this area appears to be quite light. The substantial numbers of persons utilizing the outlying shopping centers are not evidence of a "pedestrian-friendly" community.

Transportation routes have had a major role in shaping the form and growth of most cities. The Southern Pacific and the Tidewater Southern railroad lines, State Routes 99 and 120, and Interstate 5 have all played a role in shaping Manteca. Historically, the establishment of railroad transportation to Manteca was instrumental in the city's growth and development. Early plans clearly illustrate the centrality of rail transportation in the development pattern of the city, and today the railroads continue to serve as a regional path for moving goods. Unfortunately, these lines also serve as major barriers within the community fabric.



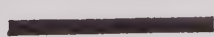
MANTECA CALIFORNIA General Plan



0 1/4 1/2
Scale in Miles

J. LAURENCE MINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

FIGURE X-4. MAJOR URBAN DESIGN ELEMENTS



HIGHWAY EDGE



AGRICULTURAL EDGE



NODES



PATHS - AUTOMOTIVE



PATHS - RAILROAD

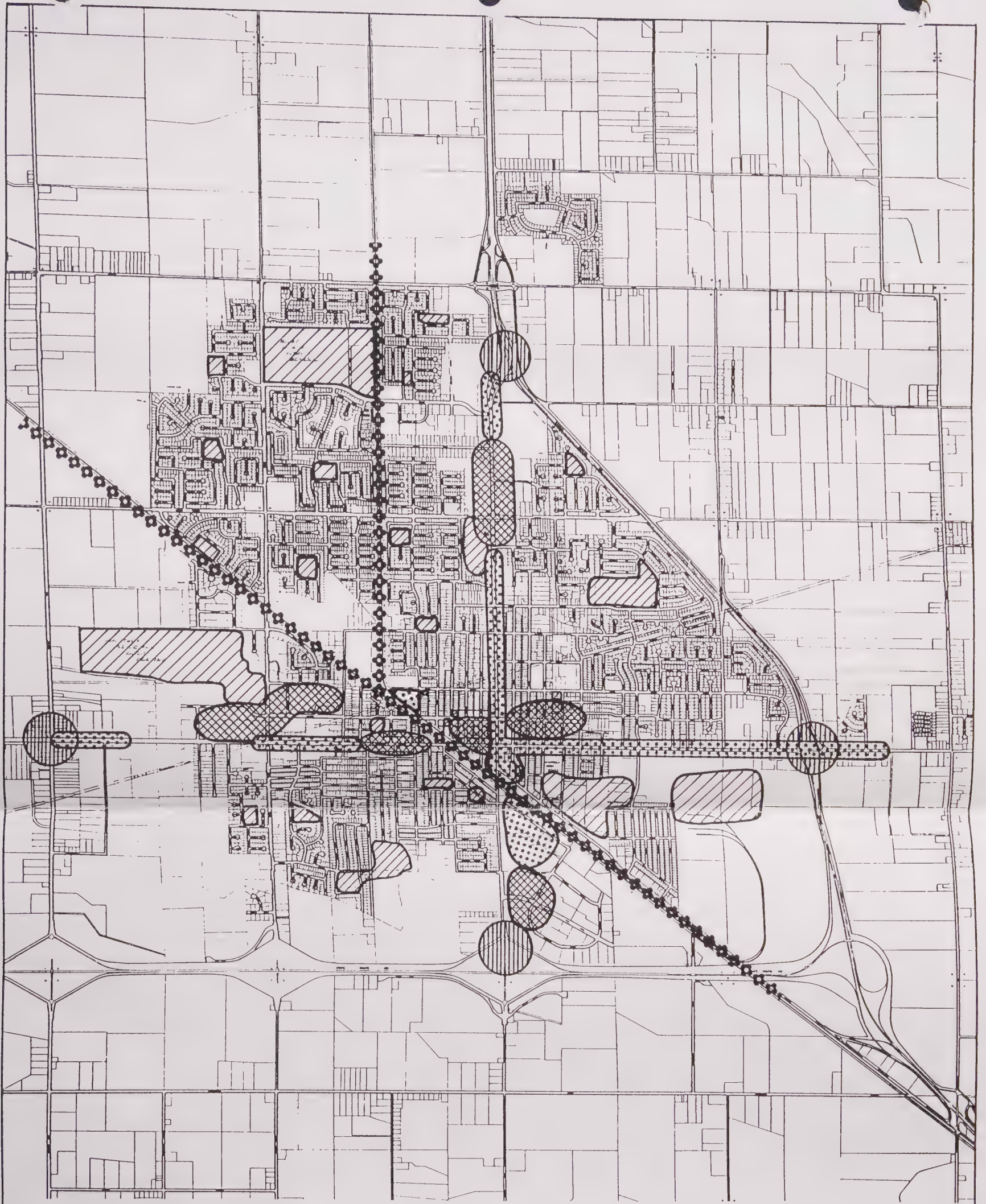


DISTRICT



LANDMARK

Source: Pepper Associates, November 1985



MANTECA
CALIFORNIA
General Plan



0 1/4 1/2
Scale in Miles

J. LAURENCE MINTIER & ASSOCIATES
JONES & STOKES ASSOCIATES

FIGURE X-5. IMPORTANT URBAN DESIGN ASSETS
AND LIABILITIES



POSITIVE AREAS TO BE REINFORCED



KEY AREAS TO BE UPGRADED



CITY ENTRANCES TO BE UPGRADED



RAILROAD RIGHT-OF-WAY TO BE UPGRADED



OPEN SPACE AREAS TO BE REINFORCED AND LINKED

Source: Pepper Associates, November 1985

State Routes 120 and 99 are major regional paths for through-travelers. Since they are traversed primarily at high speeds, these highways only provide fleeting impressions of the city, and as such do not convey a sense of "being in Manteca." Due to the current system of on- and off-ramps, travelers along these paths can easily by-pass by Manteca without engaging the city in any significant way.

Edges

Edges are the linear elements not used or considered as paths by the observer. Edges may be barriers, more or less penetrable, which close one region off from another; or they may be seams, lines along which two regions are related and joined together. These edge elements, although probably not as dominant as paths, are for many people, important organizing features, particularly in the role of holding together generalized areas, as in the outline of a city by water or wall.

The Planning Area is largely defined by Highway 99 to the east and State Route 120 to the south. These highways provide the most distinctive city edges. The city is also surrounded on all sides by edges defined by abrupt changes in land use from urban to rural uses. Yosemite Avenue and Main Street constitute major internal edges to the four quadrants described in the previous section, and, therefore, take on even greater importance in terms of their urban design implications.

Districts

Districts are medium-to-large sections of the city, conceived of as having two-dimensional extent, which the observer mentally enters "inside of," and which are recognizable as having some common, identifying character. Always identifiable from the inside, they are also used for exterior reference if visible from the outside. Most people structure their city to some extent in this way, with individual differences as to whether paths or districts are dominant elements. It seems to depend not only upon the individual but also upon the given city.

Districts within Manteca include the downtown commercial district along Yosemite between Sycamore and Lincoln, a professional district located more or less along east Center Street, strip commercial districts such as those found along much of both Main Street and Yosemite Avenue, the industrial district located in the southeast quadrant of the city, and residential districts, initially differentiated by the four quadrants and the railroad rights-of-way, with each then further disaggregated into three sub-districts reflecting the time period in which they were developed (pre-World War II, WW II - 1965, and post-1965).

Nodes

Nodes are points, the strategic spots in a city into which an observer can enter, and which are the intensive foci to and from which a person is traveling. They may be junctions, a break in transportation, a crossing or convergence of paths, or moments of shift from one structure to another. The nodes may be also be simply concentrations, which gain their importance from being the condensation of some use or physical character, such as a

street-corner hangout or enclosed square. Some of these concentration nodes are the focus and epitome of a district, over which their influence radiates and of which they stand as a symbol.

From an urban design perspective, the town of Manteca suffers from the fact that it has many small nodes with no clear hierarchy among them. Among these nodes are the downtown intersection of Yosemite Avenue and Main Street, three large suburban shopping centers located at the west end of Yosemite Avenue and the north end of Main Street, the intersection of east Yosemite Avenue and State Route 99, the new City Center complex, and several large neighborhood parks. These nodes are important features in providing structure and meaning in the built environment. As such, they should be a primary focus of attention during the development of the General Plan in order to give these areas greater distinctiveness and symbolic value in urban structuring and in providing a more coherent image of the city.

Landmarks

Landmarks are another type of point-reference, but in this case the observer does not enter within them, they are external. They are usually a rather simply defined physical object such as a building, sign, store, or mountain. Their use involves the singling out of one element from the host of possibilities. Some landmarks are distant ones, typically seen from many angles and distances, over the tops of smaller elements, and used as radial references. They may be within the city or at such a distance that for all practical purposes they symbolize a constant direction. Other landmarks are primarily local, being visible only in restricted localities and from certain approaches. These are the innumerable signs, store fronts, trees, and other urban detail, which fill in the image of most observers. They are frequently used clues for identity and even of structure, and seem to be increasingly relied upon as a journey becomes more and more familiar.

Landmarks internal to the city include many individual structures (public buildings, schools, churches, supermarkets, water towers, etc.), parks, railroad crossings, and numerous other "individualized" landmarks as perceived by each person moving through the community. The prominent external city landmarks--the water towers and the silos, are not easily seen from within the city and, therefore, have limited value in terms of internal visual structuring.

In addition to these key elements, there are important urban design considerations related to the scale of the city as it pertains both to its actual size (as related to the regional settlement pattern) and its perceived size (as related to the sense of size perceived from within the city).

Factors Influencing Urban Design

The physical expression of a city reflects many factors. City history, economic conditions, governmental regulations, civic pride, political leadership, the cohesiveness of the business community, and the design sensitivity of individual landowners all contribute in determining the built form of the city. Natural features such as topography, hydrology vegetation, and climate are also important influences on the designed form of the city.

In recent years, rapid suburbanization and the development of outlying shopping centers have had a pronounced effect on the urban structure of Manteca. Since these factors appear to be regional or sub-regional in nature, the community must develop planning strategies to offset the effect of these external factors on the urban structure of the city.

FINDINGS

- o Because the topography of the Manteca area is virtually flat and the tree cover screens off distant views, near ground and middle ground views take on added importance. The quality of these near ground and middle ground views is determined almost entirely by the quality of man-made structures and non-native landscaping. Therefore, most of the quality of Manteca's visual environment is under direct control of the City of Manteca through its public works and land use regulatory procedures.
- o There are three pressing issues and opportunities (within the direct purview of the city) concerned with developing a more desirable three-dimensional quality of the community while maintaining the small town character:

- (1) Upgrading the visual quality of the commercial development corridors along the two major thoroughfares--Yosemite Avenue and Main Street;
- (2) Upgrading the visual quality of the entire downtown area, including enhancing its historic character; and
- (3) Providing a gateway at the major entry points into the city in or to give a sense of arrival and entry into both the city and the downtown.

A secondary issue/opportunity concerns upgrading the visual quality of the railroad rights-of-way and converting these visual liabilities into assets.

- o The Issues Summary of the Manteca General Plan Revision Community Concerns Summary Report, included in this report as Appendix A, identified a number of urban design concerns expressed by both residents and public officials. Many of the positive attributes and problems identified have urban design implications.

The two most important qualities of the city--the highly-valued community character as reflected in the small town atmosphere and the open-space character of the surrounding agricultural landscape can be protected through careful urban design. The revitalization and enhancement of the downtown area with its complement of historic buildings can also benefit significantly from a concerted urban design program.

Circulation and traffic--identified as one of the most pressing problems--and residential, commercial, and industrial development clearly must be addressed within an urban design context, as will issues concerned with residential development, as well as commercial and industrial development. The generic issue of growth itself raises important urban design questions.

- o A number of specific urban design issues and opportunities warrant attention. The downtown commercial district needs greater definition and visual structure, as it presently lacks orientation and visual cohesiveness.

There is no clear sense of being downtown from the point of view of motorists traveling Main Street. Building and projecting a sense of commercial vitality and of a quality pedestrian environment will be critical in achieving a clearer and stronger sense of place in the downtown.

- There is an obvious ambiguity regarding the city's image. There is no clear internal identity to the city. This is primarily due to the existing ambiguous nature of the downtown area. Although the city has many charming, comfortable, attractive residential neighborhoods and a highly scenic agricultural setting, the absence of a coherent and high quality commercial core area makes establishing a strong city identity extremely difficult.

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APPENDIX A

MANTECA GENERAL PLAN REVISION COMMUNITY CONCERNS SUMMARY REPORT

This report presents a summary of issues identified by the residents and officials of the City of Manteca as significant community concerns to be addressed in the revised Manteca General Plan. The report is based on individual and group interviews with city officials, a townhall meeting and written responses to a survey of community opinion. Data collection and policy development for the Manteca General Plan revision will be based partially on these findings.

On August 19 and 20, 1985, Manteca's general plan Consultants, Mintier & Associates, conducted a series of informal interviews with City officials. These interviews include a group interview with City department heads and individual interviews with nine City Council and Planning Commission members. A list of those interviewed appears at the end of this summary.

In conjunction with the interviews, the Consultants conducted a townhall meeting on Tuesday evening, August 20, in the Manteca Council chambers. Approximately 65 Manteca area residents attended.

In addition to the interviews and townhall meeting, the City solicited comments from residents on their concerns through a Community Opinion Survey. This form was published in the Manteca News, mailed to key community groups, made available at City offices and other locations around town, and distributed at the townhall meeting. By August 30, the City had received 137 completed forms.

The interviews, townhall meeting, and community opinion survey sought responses to three general questions.

1. What are the positive qualities or assets of Manteca?
2. What are the problems with Manteca?
3. What issues should be addressed in the revised general plan?

Understandably, there was overlap in the responses to the three questions.

This report summarizes responses to these three general questions. This effort does not purport to be a scientific opinion survey. Rather, the report records the Consultants' impressions of residents' perceptions of and concerns about Manteca. No attempt has been made in this summary to edit out contradictory comments or comments critical of City officials, or to make the comments fit preconceived notions about the problems and opportunities facing Manteca.

POSITIVE QUALITIES AND ASSETS

The first of the three questions concerned what residents feel to be the positive qualities and assets of their community. The most highly valued assets are the character and people of the community and the quality of life in Manteca.

Community Character

The small town, rural atmosphere of Manteca is for many the most important asset to be preserved. Although it has experienced rapid growth in recent years, Manteca is still perceived as a small "hometown" and a family-oriented community where knowing one's neighbors is important.

Mantecans clearly appreciate their neighbors and fellow residence and see Manteca as a close knit family with shared values and a deep sense of community involvement. One person remarked that one "couldn't find a better place" because of the people. Another remarked that Manteca deserved well its motto, "The Family City."

Quality of Life

Mantecans prize the high quality of life in their community and cited a sense of personal safety, a good educational system, and an excellent park system as important contributors. Affordable housing and the lack of segregated or slum areas in the community were also mentioned as important elements in Manteca's high quality of life.

Associated with Manteca's small-town character, many feel that a lack of traffic congestion and a slower pace of life than exists in other urban communities contributes significantly to the quality of life in Manteca.

Physical Environment

An important physical asset often mentioned was Manteca's location. Residents feel that they are well situated with respect to Northern California's major urban and recreation areas. The Capitol, the Bay Area, the mountains, and the coast are all within an easy drive of Manteca.

Another aspect of location important to many residents is Manteca's agricultural and open-space setting. The agricultural setting of Manteca provides residents with a sense of identity and constitutes an important part of the fabric of the community.

Other physically appealing qualities mentioned include Manteca's trees, an attractive downtown, cleanliness, and wide subdivision streets.

Business Climate

Many residents feel Manteca has a strong local economy in its favor and that low land prices (comparatively speaking) provide excellent opportunities for growth.

Other Positive Qualities and Assets

Other qualities and assets mentioned at least once by residents include the following:

- Manteca becoming more metropolitan
- Televised City Council meetings
- Good fire and police departments/emergency response
- Numerous churches in the community

- Responsive city government
- Caring doctors
- A good industrial park
- Good transportation systems (e.g., Interstate 5, the 120 bypass, Stockton Metropolitan Airport)
- Availability of parking

PROBLEMS

During the interviews and townhall meeting, participants were asked to identify major problems in Manteca. The Community Opinion Survey asked respondents to identify the critical planning issues facing Manteca, as well as what they would most like to change about the community. The problem areas most frequently mentioned include circulation, residential development, planning and growth, and recreation.

Circulation

There is a general feeling in the community that circulation and traffic patterns are inadequate. Specific examples mentioned include: the lack of east-west arterials, the lack of access to Highway 99; and cul de sac streets limiting through traffic. In addition, the railroad tracks bisecting the community are seen as a major problem because of the number of grade crossings and the potential for interrupting emergency response.

Other traffic-related concerns included high speed traffic on Main and Louise and inadequate traffic controls.

Residential Development

Another group of problems identified concerns residential development. The primary concern was that there has been too much apartment development in recent years. Many feel that the balance between multi-family and single family development has been upset and that this imbalance threatens to change the character of Manteca. Many feel that multi-family densities (at up to 25 dwelling units per acre) are too high and that the R-4 zoning density range is too large and should be reexamined. Associated with concern over too many multi-family dwellings is a concern over the inadequacy of parking for apartments and a fear that future slum areas are being created by excessive apartment development.

Planning and Growth

Recent growth and planning for future growth are major issues for the people of Manteca. Public opinion ran the gamut from a desire to stop growth completely to controlling and limiting what others see as inevitable growth to aggressively promoting growth. Despite these differences of opinion, there seemed to be a consensus that growth has occurred too rapidly in the recent past and that it has not been adequately planned. Many residents fear that rapid growth is destroying the rural atmosphere of Manteca, particularly with respect to urban encroachment on farmlands. Some residents feel that the 1980 General Plan has been responsible for some of the problems, including "leapfrog" development.

Many feel the City lacks strong enough development standards. Even lower County development standards were mentioned as a problem in areas to be

annexed to Manteca (although the County is currently strengthening its development standards). There has been a lack of coordination between the City and the County on development approvals in the unincorporated areas around Manteca, despite good relations between City and County staffs.

Annexation policy is a significant concern for Mantecans, many of whom feel that annexations in the past have been too small in scale and too piecemeal. Many residents expressed concern about the annexation adjacent to Airport Way and Route 120. Much of the concern for this annexation focuses on the first phase which includes a cardroom. Others feel the annexation is too large a project for the community.

Lack of industrial development and the need for an additional industrial park were mentioned several times as problems for the community. According to some, there has been too much residential development and too little industrial/commercial development, contributing to low city revenues and high public service demands.

Recreation

A frequently-mentioned problem is the lack of recreational facilities generally and the lack of a large park (20-25 acres) with facilities such as a clubhouse, theatre, and playing fields. The dual usage of parks as drainage retention basins was mentioned as a problem since it precludes use of those facilities for certain sports during the rainy season.

Also mentioned was the lack of recreational activities for young people and a lack of private facilities such as good restaurants.

Miscellaneous Problems

Outside these broad categories of concern, residents mentioned a host of other problems, including:

- Small-town atmosphere/image
- Mistletoe killing trees
- Lack of attractive gateways to the city
- Too many jobs in the industrial park are low-paying, second-income jobs
- Understaffed city government
- Absentee owners, especially in downtown area
- Site plans requirements demand too much water intensive vegetation
- Distance between shopping areas
- Inability of downtown merchants to compete with outlying shopping centers
- Visual quality/urban design
- Lack of large department stores
- Hospitals
- Public transportation to the Bay Area
- Poor telephone service
- Neighborhood opposition to teen recreation
- Lack of space for fairs and carnivals
- Lack of land within city limits for development
- Too much graffiti
- Inadequate curbs, gutters, and sidewalks

- Lack of "move-up" housing
- Public apathy
- Poor apartment maintenance
- Inadequate classroom space
- Lack of parental guidance
- Deterioration of groundwater quality
- Pollution from industrial developments west of Manteca

ISSUES TO BE ADDRESSED IN THE NEW GENERAL PLAN

This section summarizes solutions to some of the City's problems suggested by Manteca residents, as well as issues to be addressed in the new General Plan not mentioned in the two previous categories.

Circulation

- o Add east/west arterial streets (e.g., south of Yosemite Avenue)
- o Develop railroad over/underpasses to facilitate cross-town access and emergency response
- o Use infill development to improve street patterns (e.g., extend Joseph Road)
- o Do not institute a system of one-way streets
- o Use the Tidewater railroad right-of-way for a new cross-town thoroughfare
- o Extend Pestana Avenue to Louise Avenue or Lathrop Road
- o Extend Alameda Street to Union Road and Crom Street to Airport Way
- o Add a Highway 99 interchange at Louise Avenue
- o Consider one-way streets in downtown
- o Limit the number of new cul de sac streets
- o Develop bike lanes

Growth and Development

- o Expand the city limits
- o Expand Manteca's Sphere of Influence to maintain/increase land use control (e.g., Roth Road (north); I-5 (west); Jack Tone (east); Peach Avenue (south))
- o Extend ultimate city limits to points beyond major highways/roads to include development on both sides of the highways
- o Estimate ultimate city boundary and annex the entire area as soon as possible
- o Infill unincorporated pockets
- o Do not include the community of Lathrop in Manteca's Sphere of Influence
- o Support development of a heavy industrial park
- o Attract new industry
- o Locate heavy industrial to the west toward Lathrop
- o Establish clear standards for growth
- o Increase fees as a means of controlling growth and insuring quality development
- o Require new homeowners to pay annual fee for schools for a certain time period (e.g., 10 years)
- o Create tight set of quantitative development standards for police, fire, and recreational services
- o Assess outside growth pressures

- o Avoid leapfrog development
- o Build up, not out
- o Promote balanced growth (residential, industrial, and commercial)

Land Use and Zoning

- o Maintain the 70-30 single family to multi-family ratio set out in the 1980 General Plan
- o Reduce the R-4 density range by creating an intermediate zone
- o Support development of east side of town
- o Create clear gateways to the city
- o Preserve downtown by limiting commercial development in outlying areas
- o Retain present standards for open space and coordinate park development with the school district
- o Concentrate commercial development along Yosemite Avenue and Main Street
- o Locate apartments on major thoroughfares

Expectations for the General Plan

- o Develop a framework for assessing the impact of new development on city services
- o Make sure new plan is easy to understand
- o Clearly define "city needs"
- o Clarify "general" as it applies to the General Plan
- o Establish clear development ground rules
- o Develop a jobs/housing balance

Infrastructure

- o Establish public service needs before allowing development; make sure services keep pace with growth
- o Develop surface water sources instead of relying solely on groundwater (e.g., South San Joaquin Irrigation District appropriation from Upper Stanislaus)
- o Require developers to pay a larger share of infrastructure costs
- o Make leapfrog development pay the full cost of extending services

Miscellaneous

- o Enact mistletoe law
- o Incorporate water conservation measures in City development standards
- o Add major park with facilities such as an amphitheatre and clubhouse
- o Clean up older, residential areas
- o Promote development of a new movie theatre
- o Construct more curbs, gutters, and sidewalks
- o Increase design standards for residential development and create design/architectural review commission
- o Capture more property and sales tax dollars
- o Reinforce existing rural area green belt
- o Provide more public information on agencies regulating or affecting development in Manteca
- o Promote business/industrial support of city services
- o Develop more support services such as restaurants and hotels

LIST OF THOSE INTERVIEWED:

I. Individual interviews

City Council Members

Jack Snyder, Mayor
Dick Cross, Vice Mayor
Bill Perry
Jeanne Dowhower
Dave Balsinger

Planning Commissioners

Marsha Wegener
Ron Cheek
Don Moyer
Al Nunes, Chairman

II. Staff Interviews

David Jinkens, City Manager
Phil Sanguinetti, Planning Director
Leonard Taylor, Police Chief
Curly Boyd, Parks and Recreation
Mike Brinston, Public Works Director
Ron Waddle, Assistant Fire Chief
Lettie Allison, Finance Director

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